

# MANUFACTURERS

## RECORD

A WEEKLY REVIEW OF THE IRON, STEEL, METAL & HARDWARE TRADES.

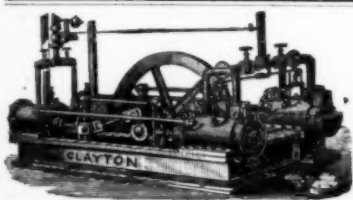
AND A MANUFACTURING AND TEXTILE PAPER, DEVOTED TO THE UPBUILDING OF SOUTHERN MANUFACTURES AND THE DEVELOPMENT OF THE MATERIAL RESOURCES OF THE SOUTH.

WEEKLY.  
\$3.00 PER YEAR.

BALTIMORE, APRIL 12, 1884.

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Vol. V. No. 8.

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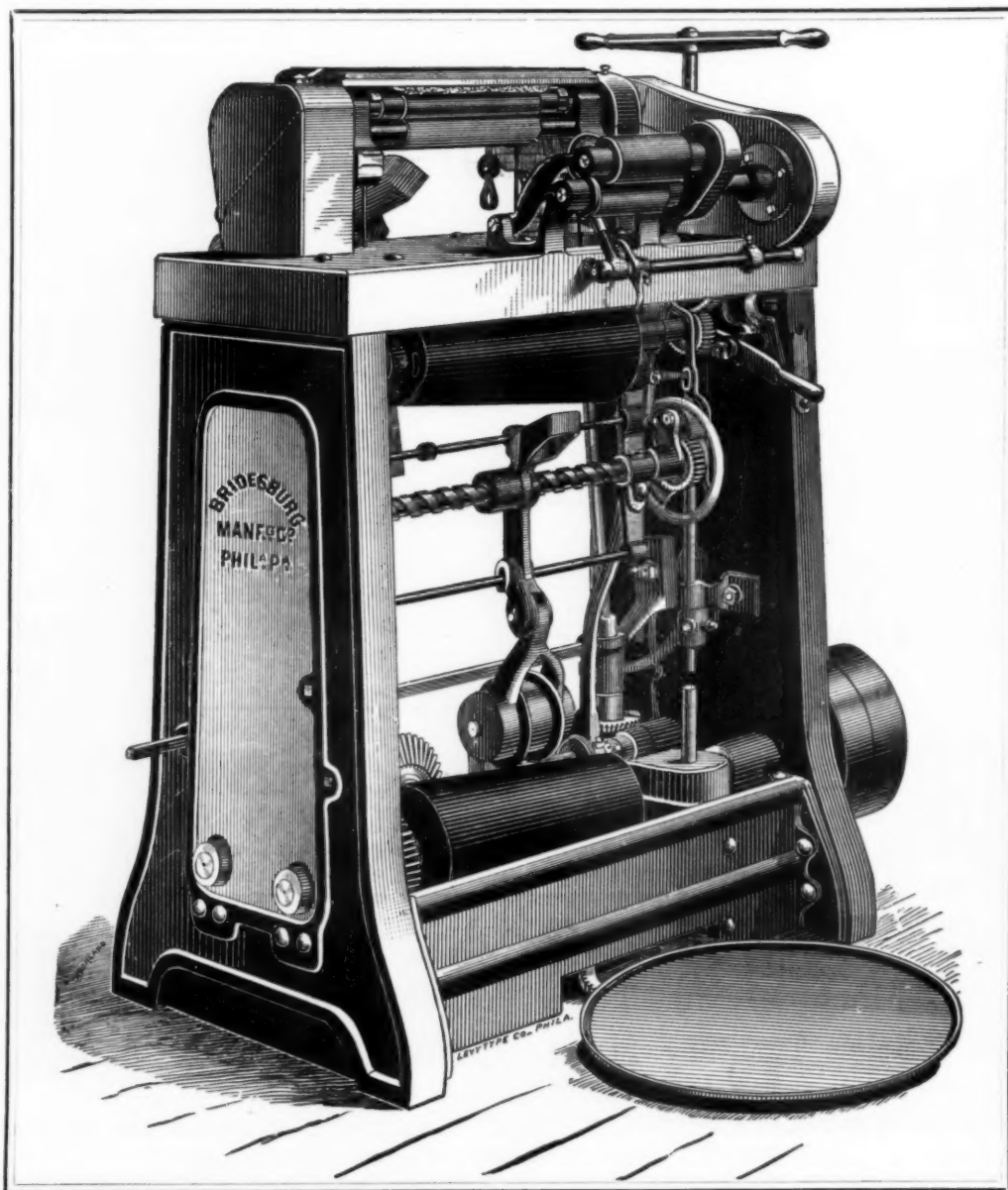
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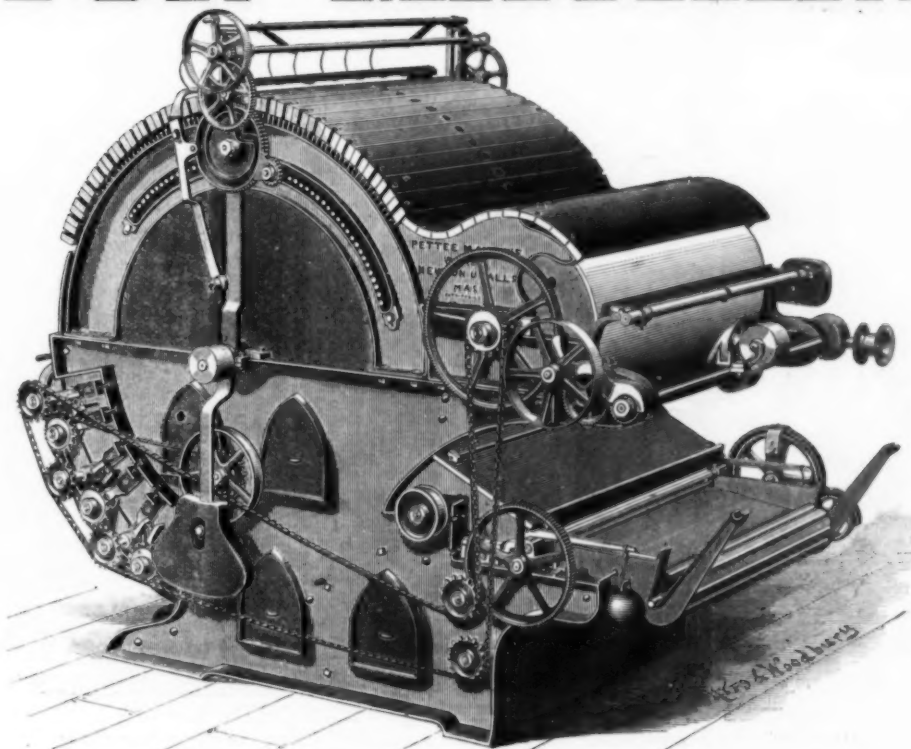
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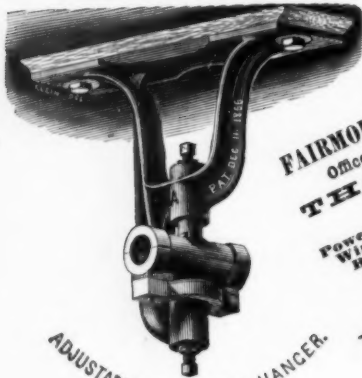
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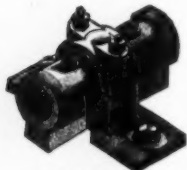
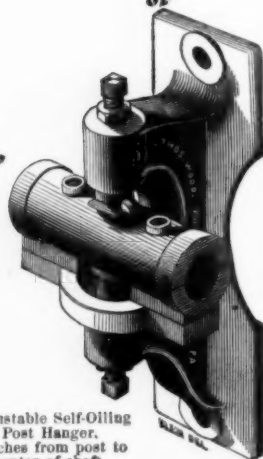
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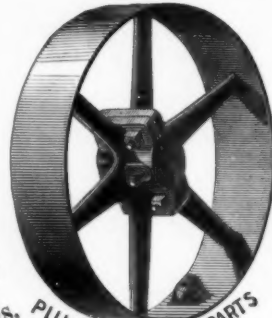
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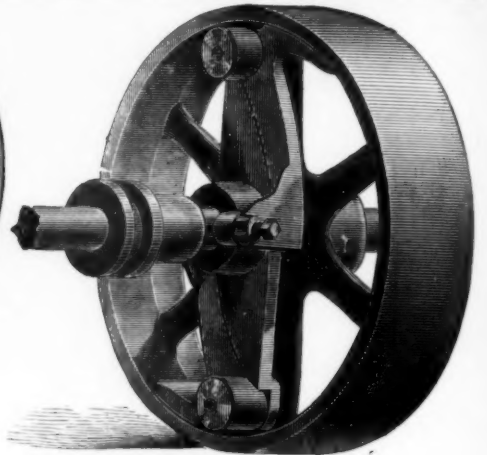
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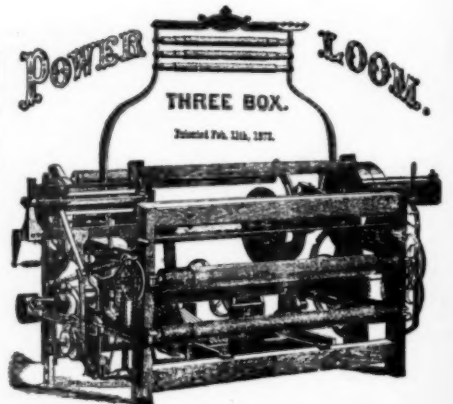
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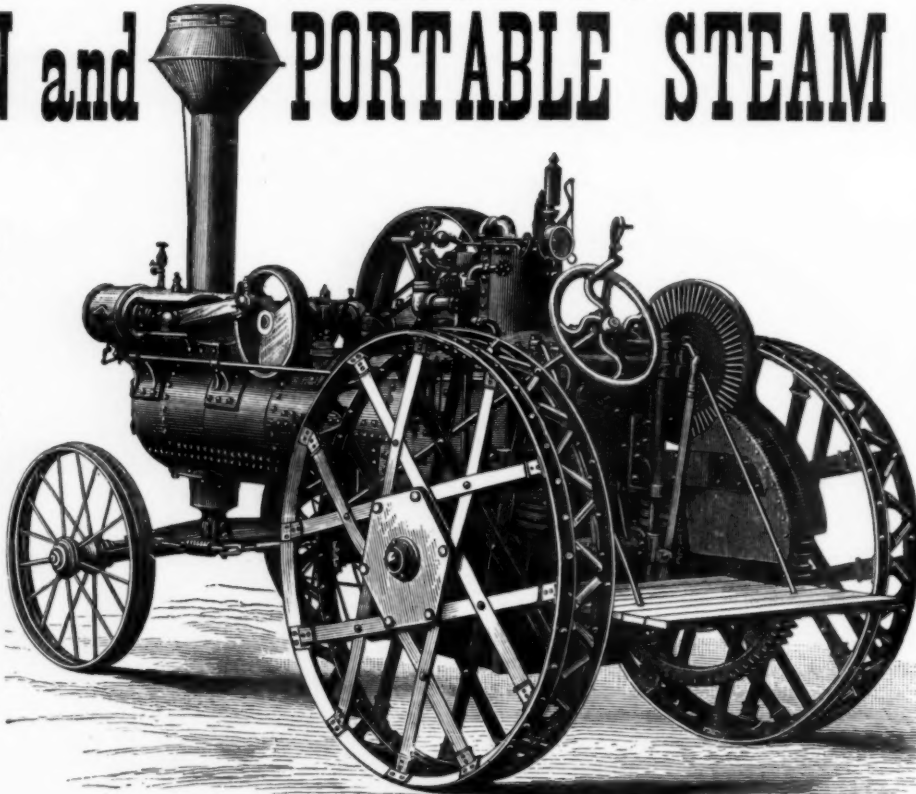
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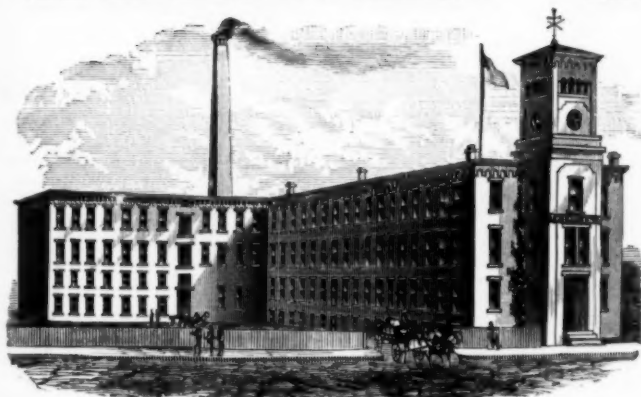
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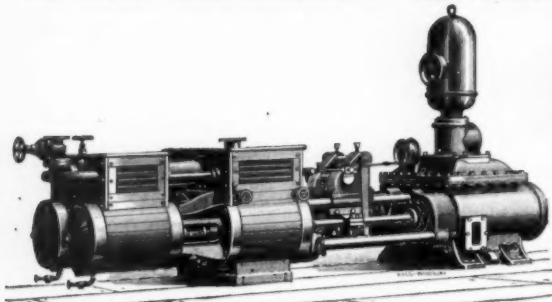
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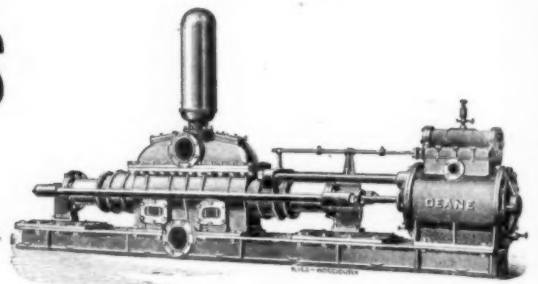
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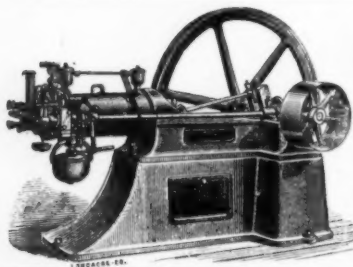
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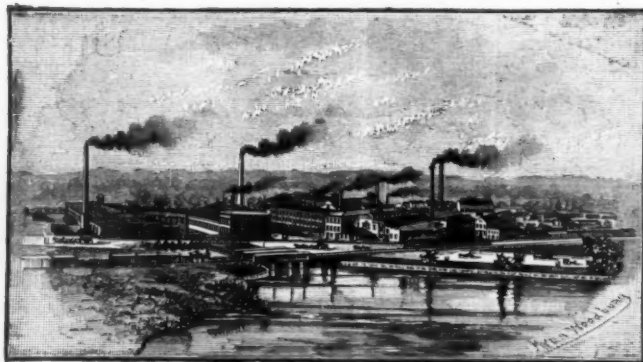
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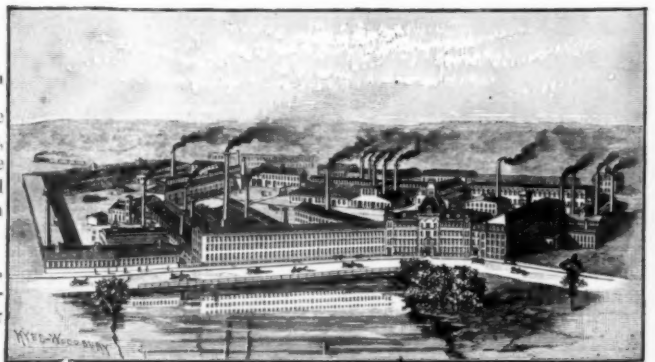
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PUBLISHED EVERY SATURDAY.

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BALTIMORE, APRIL 12, 1884.

CORRESPONDENCE relating to the manufacturing, mining, lumbering and all other material interests of the Southern States is solicited. We invite those interested in the development of the South to make free use of our columns. Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the MANUFACTURERS' RECORD offers an excellent chance for the people in that section to place the advantages of each locality before those likely to be interested. We will take great pleasure at all times in telling what has already been accomplished in the South, and showing up the opportunities of doing still more,—so if you desire to attract immigration or capital, or if you know of an opening for profitable investment in manufacturing, mining or kindred pursuits, write us an account of it. It will be published free of cost.

UNLESS something has miscarried, that great power creator—the Keely motor—must be answering all expectations. April 10th was the day set apart for a complete triumph over the engineers of this or any previous age; but we are so accustomed to the going astray of some little item in the elaborate machinery make-up that we shall not be surprised to hear that the day of rejoicing (to the stockholders) has suffered another adjournment.

Our readers will confer a favor upon our advertisers and upon us, as well as benefit themselves, if, whenever they write to anyone advertising in this paper, if it is only for a catalogue, they mention that "your advertisement was seen in the BALTIMORE MANUFACTURERS' RECORD." A careful compliance with this request will be much appreciated.

## Free Trade and English Iron.

The glorious doctrine of free trade is somewhat more barren of happy results than its English votaries would have us believe. In England, in a greater proportion than in this country, the iron markets point with unerring finger-posts to the prosperous or dolorous condition of the country's trade. English journals have a peculiar faculty, occasionally borrowed by their American cousins, of keeping the best side constantly foremost. Out of statistics that have a most dreary appearance the English writer will gather in comfort after comfort, until the bunch seems greater than the original supply. Occasionally, however, a wail finds its way to the surface, and the uncheering truth is told to others than Englishmen.

In a recent statement made by a leading iron firm of London the question of production and output is handled in a way that shows those to whom it fell did not enjoy the unwholesome compilation. In referring to the absolute loss of markets, the statement says:

"However much we may preach the blessings of free trade to other nations, they seem farther than ever from adopting it. One after another shut the door, so to say, in our faces, and virtually, by protective duties, prevent the entrance of our goods. As a producer of iron and steel Great Britain has, roughly speaking, to dispose of about a-third of her total by way of export. No other country is similarly placed. Markets that used to belong fairly to this country we can hardly approach at all; for instance, Russia used to take very large quantities from us. There they now manufacture for themselves, and, whatever the cause, we have lost a good customer. Their system creates a native industry; raw materials are at hand; they will manufacture, will make themselves independent of us and others, irrespective of the cost to the country."

It is rather sad to contemplate that the "exports to the United States," of iron and steel, were over half a million tons less in 1883 than in 1882,—this decrease being a loss of forty-two per cent. Of a million tons of rails made, foreign markets were had for over 323,000 tons, these markets being chiefly among the British colonies. It is stated that the only classes profiting by the present status of affairs in Great Britain have been the landlords and the bankers.

Verily, the blessings of free-trade rest lightly upon the shoulders of those who carry in the heat and toil of stagnated shipments and competition from without. The latter is found in the iron imports from Germany, which country is placing large quantities of armor plates in English markets at cheaper figures than they can be made for there. The difference in cost is said to be so great that English ingenuity in construction has not yet found a way to overcome the balance without resorting to that panacea for all such ills—the reduction of wages. Already at starvation point, the remuneration of British iron-workers bids fair to go yet lower,

especially with the further growth of inevitable competition in the East. Free-trade is destined to solve one problem, that of the lowest wages upon which an Englishman can subsist and raise a family of semi-paupers.

## The Claims of Mushet.

The discussion now going on in Great Britain, over the credit due to the successive inventors who have paved the way to our present enjoyment of a fairly complete steel process, shows that it is simply impossible to ignore the claims of Mr. Mushet. This Mr. Jeans has attempted to do in his recent work, and the storm he has invoked is but small in comparison with that which will follow. Mr. Carulla, in his lecture upon the "Age of Steel," meets the issue by giving rather too full praise to Mr. Mushet, and not enough to Sir Henry Bessemer, who must ever stand as the foremost factor in the production of the process bearing his name. There is no doubt but that the discoveries of Mushet not merely helped along those of Bessemer, but were indispensable to the entire success of the latter; but it must not be forgotten that Mushet was urged to his experiments by the example of Bessemer. The latter made the discovery of the principle; the former stumbled upon the combination that opened the lock and made clear the way to future success. The stumble was a fortunate one, but it was a stumble, and the claims of Mushet are rather to practical than to scientific success. In the controversy now pending the research is apt to be thorough, and we shall know just in what proportion we are indebted to these two men who have done so much for the world of mechanics.

THE stoppage of one of the largest textile mills of Philadelphia, with promise that such stoppage is permanent, points an inevitable question at this time. For some time past the mill referred to has been slowing up, running on part time, etc., with the hope that some change might take place in the markets that would let its products out with a delicate thread of marginal profit; but this hope has been too long deferred. The manufacture of cotton goods at the South has proved fatal to the success of this Northern competitor, and it is among the first to succumb. There is no insolvency and the surplus capital of the concern would enable it to stand out for some time longer against the steadily accruing loss, but this loss will be certain and the managers are in no haste to waste what may prove good substance, should the motion partly made,—to move Southward,—prevail. We welcome all such cases. The South is ready and willing to receive all who come in good faith. The land is broad enough and the cotton field is at the doorway of the mill. Some day the world will consent to learn the easy lesson,—that finished goods are better to freight than raw materials.

## Mercantile Failures for the Last Quarter.

Bradstreet's records for the past quarter show an increase in the total number of commercial failures over the corresponding quarter of 1883.—In some directions this increase is considerable, but looking purely from a commercial stand-point there is no danger of panic or collapse. In dissecting the return figures, Bradstreet's calls attention to this, and wisely states:

It must not be overlooked that the list has been materially declining for some weeks, and that during this period, with no noteworthy exception, there have been no really heavy failures. We have heretofore defined a commercial panic as a time when solvent firms fail. We recall it for the purpose of directing attention to the fact that we are, as per the last quarter's record, drifting further and further from the nearest approach we have had to a panic. When, a few months ago, various commercial "cliques" which had been regarded as eminently solvent were obliged to go to the wall, there was good reason for shortening commercial sail sharply. Of late, however, not only are we not greeted weekly by one or several failures, with liabilities mounting into the hundreds of thousands, but such are becoming verities.

The logic of this is sound and conveys the fact which the published figures bear out, that the general commercial status of the country is steadily growing better, despite an apparent increase in commercial disasters.

Of the fifteen failures since the opening of the year, wherein the liabilities have reached upwards of \$250,000, but one occurred in the South, (Louisiana) and in this case the liabilities amount to \$288,610, while the assets are \$200,000, which showing considerably reduces the scale of the real loss.

Of the next class of failures, (between \$100,000 to \$250,000) the totals represented by the Southern States foot up \$1,364,477, with assets of \$672,000, or an average of nearly fifty per cent.—a showing much better than made by the New England or Middle States.

To the class of failures between \$25,000 and \$100,000, the South contributes a total liability of \$2,157,974, with opposing assets of \$1,207,358, still a higher ratio than exhibited by either the Middle or New England States.

The percentage of assets to liabilities in Southern failures during the past quarter has been 54 per cent., an increase of six per cent. over the first quarter of 1883. The corresponding percentage in the Eastern or New England States has decreased from 44 to 43 per cent., while in the Middle States the figures have remained stationary at 46 per cent.

The total number of failures during the quarter just closed was 3,320, against 3,189 in the corresponding quarter of 1883.

The decrease in liabilities over the figures of the 1883 quarter has been \$3,188,414, while the decrease in assets has been \$3,298,417.

The full totals credited to the South for the quarter are as follows:

No. failures	775
Assets—nominal	\$7,642,933
Assets—actual	4,595,016
Liabilities	8,580,193



# CONSTRUCTION DEPARTMENT.

We publish, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

The Edgemont Copper and Mining Co., of Boston, operating in W. Va., has increased its capital about \$100,000.

H. C. Clement, a millionaire of Chicago, has organized a company and purchased about 4,000 acres of marble land in Georgia. Early in May office will be opened in Atlanta, and full supply of machinery for heavy working operations purchased.

The Planters and Crescent Co., of New Orleans, are rebuilding their oil mill at a cost of \$100,000.

D. C. Morgan & Co., Baltimore, will erect a four-story factory.

Reported that a large cotton mill will be built in Russellville, Ark.

A street railroad company has been organized in Waco, Texas, by M. D. Herring, J. L. Dyer, J. P. Garland and Sanford Johnson.

Chartered in Texas—Camp County Oil Works; capital \$30,000.

F. Cantrell & Co., Spartanburg, S. C., will start foundry and machine shops.

A brick factory is to be started at Sheffield, Ala.

John W. Boughton is starting a wood-working factory at Oakvale Station, Va., on the Norfolk & Western Railroad.

The new furnace of the Clifton Iron Co., previously mentioned, will be built at Alabama Furnace, Ala., the name of which will hereafter be Jenifer.

The Cramp Gold Mining Co. has been organized in Union Co., N. C.

The Talladega Milling and Mining Co., which has just been organized at Hannibal, Mo., with an office at Waldo, Ala., has a capital of \$25,000,—privilege of increase to \$100,000. Will work a gold mine.

Incorporated at Atlanta—The Georgia Marble Company; capital \$100,000. For mining and working marble, &c. Incorporators are Henry C. Clement, Chas. L. Willoughby and Oscar F. Bane, of Chicago, and Frank H. Siddall and Harry Dewar, of Philadelphia.

A hotel to be known as the Kimball House, to cost \$150,000, will be built in Birmingham, Ala.

A roller flour mill to be built at Waxahatchie, Texas.

The Norfolk & Western R. R. Co. will shortly build brick passenger depot at Petersburg, Va.

Capitalists have bought land at junction of Southwestern and Macon & Brunswick railroads, near Macon, Ga., and will erect cotton mill.

S. Long will establish a knitting and bagging factory in Macon, Ga.

James Farwell, of Dayton, Ohio, is looking up a site in Texas for establishment of a large agricultural implement manufactory. He represents Ohio capitalists who will spend half a million dollars in the erection of buildings and half as much more in machinery.

The Selma, Panama & Mexican Gulf Transportation Co. has been organized at Selma, Ala., to build a railroad into the Cahaba coal fields.

Subscriptions to the cotton mill at Lynchburg, Va., previously noticed, amount to \$140,000. Max Guggenheimer can give particulars.

The B. & P. R. R. will build work-shops, car-yards and round-houses, as well as cattle yards, in Washington, D. C.

The Soquire Manufacturing Co.'s woolen mill, near Clarksville, Ga., expect to increase capital from \$20,000 to \$30,000.

Parties in Easton, Md., are negotiating with Col. W. W. Taylor for construction of water-works as a private enterprise.

Col. J. W. Wilson will probably start corn and flour and planing mills at Statesville, N. C.

The F. M. & P. R. R., a branch of the B. & O., will build a road from Uniontown, Pa., to Fairmount, W. Va. The W. Va. & Pa. R. R. will build from Uniontown to Clarksburg, W. Va.

The Louisville City Railway Co. will put up a brick stable, to cost \$13,000.

Work will soon be commenced on the new building for the Memphis, Tenn., Cotton Exchange.

J. N. Stanford is building a mill and gin house at Pineapple, Ala.

Bynum Flouring Mills, Bynum, N. C., will put in new roller-press machinery, enlarge, &c.

The foundation for large furniture factory of Ristine, May & Co., at Chattanooga, has been laid.

\$10,000 will be spent in erecting elevators in the City Hall, Baltimore.

The Senior Jellico Mountain Coal Co., capital \$500,000, has been organized at Jellico, Tenn., by B. R. Hutchcraft, J. W. Fox and others.

The building of the Richmond, Va., City Hall, already noted, will be commenced very soon.

Geo. F. Drew & Co., and others, have formed a new company, to build steam engines, saw mills, and general machinery, in Jacksonville, Fla.

The ice factory to be established in Lynchburg, Va., as previously reported, will be operated by a company organized by Linde, Smith & Co., New York.

Work will be vigorously pushed on the shops of the N. O. & N. E. R. R., at Meridian, Miss. Already mentioned.

N. S. Eaves, Cartersville, Ga., has received the contract for rebuilding the Mitchell House, Thomasville, Ga.

A pottery is to be started at Maysville, Ky.

A hotel company has been organized at Monticello, Fla. Work will be commenced at once.

Dr. H. M. Caldwell, president of the Elyton Land Co., and M. H. Smith, vice-president of the L. & N. R. R., have organized a company, with capital of \$225,000, to build a hotel and union depot at Birmingham, Ala.

Bids will shortly be invited for the erection of the Georgia capitol. The Capitol Commission, Atlanta, can give information.

Hugh A. Haralson, Selma, Ala., is in correspondence with Northern capitalists, who expect to build a \$400,000 cotton mill in that city.

A new and costly building will replace the Central Presbyterian Church at Atlanta, Ga.

F. H. Orvis will erect a large hotel in Palatka, Fla.

Col. Forsyth, Rome, Ga., will transfer to other parties the charter of the street railway previously mentioned, and the work will be pushed.

John W. Hardy is preparing to erect buildings for planing mill, sash and blind factory in Calera, Ala.

Fairburn, Ga., will build a \$7,000 jail.

Dr. M. G. Moore and others, Wetumpka, Ala., are trying to organize a company to build a cotton mill.

R. M. McDaniel will erect a large machine shop at Greenville, S. C.

H. Shubert will erect a large four-story hotel in Knoxville, Tenn.

Mexia, Texas, will build a city hall and school house.

The Warrior Coal, Coke and Iron Company will, in about 60 days, begin mining at the rate of 500 tons a day.

The Broken Arrow Coal and Coke Company, Ala., will erect 50 additional ovens.

The Virginia Iron Shipbuilding Company has been organized for building iron and steel ships at Alexandria, Va. The incorporators are Capt. J. B. Thomas of Boston, Capt. Goss of Bath, Me., C. E. Moody of Boston, and others.

Chartered at Austin, Texas—the Independence Clay Station and Brazos Valley Railroad Co. The road to run from Independence in Washington county to Clay Station in Burleson county. The incorporators are Martin Drenon, Harry Haynes, W. D. Womack, Frank A. Sheperd, W. F. Willie, G. W. Booker, John McKnight, James A. Karnes and A. McKnight.

It is stated that work will be commenced next fall on the Natchez, New Orleans & Northwestern Railroad, from Pine Bluff, Ark., to New Orleans.

Rumored that the Upper Appomattox Co., at Petersburg, Va., has increased its capital stock to \$1,000,000, and will remodel their mills, introduce improved machinery, &c.

A fertilizer factory is talked of in Oxford, N. C.

The Mechanics' Fire Company, Selma, Ala., is trying to raise money to build a new engine-house.

## BURNED.

Planing and shingle mill of W. N. Litch, at Chauncey, Ga.

Planet Flour and Grist Mill, at Lincoln, N. C.; loss, \$8,000.

Planing mills, &c., of W. N. Leith, near Chauncey, Ga.; loss about \$4,000.

Flour mill of Williams & Staples, near Patrick C. H., Va.

Planing mills of M. Russe, Brenham, Texas.

Saw mill of Dale, Wells & Co., Screven, Ga.

Saw and grist mill of Lipscomb & McKennous, Sawdust Valley, Tenn.

Pelican Cotton Mills, Shreveport, La.; loss \$30,000.

John Boute's Sons rope factory at Dayton, Ky., partially burned; loss \$2,000.

Cotton mill at Dalton, Ga., injured by explosion of boiler.

Foundry of A. Kleng, Mobile, Ala., will rebuild at once.

## LOCKWOOD, GREENE & CO. MILL ENGINEERS

Office, 65 Westminster St., Providence, R. I.

Carefully prepared plans, specifications and estimates furnished for the construction, equipment and organization of new mills and the revision and improvement of old.

## The James River Valley.

### Its Great Openings for Manufacturers—Combination of Good Lands, Minerals and Timber.

Below the falls of the James river, at Richmond, the valley is wholly alluvial to Hampton Roads. At Richmond there is a fall in the river of 84 feet, giving 7,000-horse power, of which there is now utilized 4,200,—leaving ready for use over 3,000-horse power now available. Before the railroad superseded the canal, the James River and Kanawha Company objected to selling any more power, because of the increased current which impeded navigation. Now the Richmond & Alleghany Railroad Company, owning it, are willing and ready to lease power on fair terms. Sites along the canal—notably the old armory lot and above the Tredegar works—can now be bought, and water power leased to drive machinery of any kind. Also fine sites can be obtained on the Manchester side, where the railroad company control the water power and will grant leases. The city of Manchester will also grant exemption from taxation for a number of years to any one erecting manufacturing establishments.

But sites for manufacturing establishments are not confined to the falls at Richmond. All along the river for more than two hundred and fifty miles (counting the James and its tributaries, on which dams are now standing,) are found water-powers of vast amount. The stone dams, of most substantial material, are ready to turn the whole volume of the stream on wheels, having ceased to be used for canal purposes. Of these there are 25, averaging 19 feet in height, besides 9 others on the Rivanna river. Of the power given by these dams but a small proportion is now utilized, notably at Lynchburg, where a new and substantial stone dam has recently been erected. A few miles above Lynchburg a part of the water of the river is utilized by the Virginia Nail Works Co. An estimate, carefully made by hydraulic engineers, gives the amount of power available and ready for use at 10,000-horse power at minimum flood, not counting the dams on the Rivanna river.

Besides the power given by the James and Rivanna rivers, there are numerous streams flowing into the James. Some of these afford excellent sites and abundant power for factories. On Bent creek, about 100 miles above Richmond, and near James river, there is a fine water-power ready for use, and also a large brick building suitable for a woolen and cotton factory. This building is as good as new, but has never been utilized for its intended purpose, viz: a woolen mill. Abundant timber of various kinds is at hand, and a number of buildings for operatives could be had with the mill site.

As to the cost of water-power on this valley, judging by known localities where power is leased, the rate would be about half what steam-power would cost. Now when it is taken into consideration that a railroad with the easiest grade possible runs immediately by all these sites, thus insuring lightest rates on Eastern and Western freights; and further that this line is crossed at Richmond by Northern and Southern lines, and has connections there with steamers to nearly all the great markets of the world; and that at Lynchburg, Lexington and Clifton Forge other great trunk lines are intersected, it will be readily seen how accessible markets for manufactured products can be reached, as well as sources of supply of raw material needed from abroad.

In my next I will give further elements entering to make a combination of advantages for manufacturing. BIRE,  
RICHMOND, VA., April 9, 1884.



## The Meeting of Southern Cotton Manufacturers at Augusta, Ga.

SOUTHERN OFFICE

BALTIMORE MANUFACTURERS' RECORD,  
ATLANTA, GA., April 4, 1884.

The meeting of Southern cotton manufacturers in Augusta yesterday was a very important one in some respects. It was the beginning of organization.

There were representatives present of 29 cotton mills, and letters from the heads of 11 other mills,—40 mills and 16 millions capital being thus represented. The delegates were:

A. E. Hutchisson, Rock Hill Factory, 7,904 spindles.  
O. S. Porter, Covington, Ga., 2,300 spindles.  
A. G. Pope, Powell's Mills, Ga., 3,000 spindles.  
H. T. Inman, Atlanta Exposition, Ga., 4,800 looms, 16,000 spindles.  
F. H. Barber, Fishing Creek, S. C., 4,000 spindles.  
O. Barber, Cedar Shoals, S. C., 816 spindles.  
R. L. Bloomfield, Athens, Ga., 250 looms, 9,000 spindles.  
O. F. Cawthorn, Enterprise, Miss., 180 looms, 6,000 spindles.  
R. B. Bullock, Atlanta, Ga., 330 looms, 10,240 spindles.  
H. P. Hammett, Piedmont, S. C., 540 looms, 23,024 spindles.  
D. E. Converse, Clifton, S. C., 136 looms, 5,000 spindles.  
A. H. Swichell, Clifton, S. C., 135 looms, 5,000 spindles.  
C. T. Boehm, Union, Md., 325 looms, 3,000 spindles.  
C. T. Boehm, Phenix, Md., 150 looms, 6,000 spindles.  
W. C. Sibley, Langley, S. C., 327 looms, 10,880 spindles.  
W. F. Foster, Langley, S. C., 329 looms, 10,880 spindles.  
W. C. Sibley, Sibley, Augusta, Ga., 500 looms, 19,200 spindles.  
G. T. Jackson, Enterprise, Augusta, Ga., 630 spindles, 28,588 spindles.  
N. W. Armstrong, Fairmont, S. C., 60 looms, 4,000 spindles.  
J. B. Connelly, Sterling, Augusta, Ga., 2,500 spindles.  
Geo. Felker, High Shoals, Ga., 80 looms, 6,000 spindles.  
C. H. Phimzy, Augusta, Ga., 786 looms, 26,000 spindles.  
W. E. McCoy, Augusta, Riverside, Ga., 2,400 spindles.  
W. J. Russell, Athens, Ga., 100 looms, 3,380 spindles.  
J. H. Montgomery, Pacolet, Ga., 312 looms, 10,080 spindles.  
H. H. Hickman, Graniteville, S. C., 900 looms, 33,400 spindles.  
S. H. Howland, Graniteville, S. C., 900 looms, 33,400 spindles.  
J. H. Giles, Graniteville, S. C., 900 looms, 33,400 spindles.  
J. F. Hanson, Wilcox, Newnan, Ga.  
J. F. Hanson, Bibb, Macon, Ga., 140 looms, 16,500 spindles.  
J. O. Mathewson, Randall, N. C., 300 looms, 45,000 spindles.  
J. O. Mathewson, Naomi, N. C., 150 looms, 5,000 spindles.  
C. Estes, John P. King Co., Augusta, Ga., 760 looms, 28,464 spindles.  
Jno. A. McGinnis, New Orleans.  
Morris Stern, Louisiana, (by letter.)  
Beaver Mills, A. L. Tyler.  
Amint-ton Manufacturing Co., A. L. Tyler.  
Wehad Kee Manufacturing Co., F. P. Randall.  
Morotock Mills, W. H. Hill, Danville, Va.  
Matthews Mills, H. A. Harrison, Selma, Ala.  
Fulton County Spinning Co., J. Elise, Atlanta, Ga.  
Belmont Manufacturing Co., D. J. Mim, Sumter, S. C.  
Battersen Co., D. Callender.  
Ettlic Co., D. Callender.  
Mattacoa Co., D. Callender.  
Pulaski Co., Gordon & McCord, Tenn.  
Ivy Shoals Co., Philter & Allison, N. C.  
Natchez Co., R. F. Learned.  
Eagle & Phenix Co., W. H. Young, Columbus, Ga.

Mr. J. F. Hanson was made chairman of the convention, and A. H. Twichell secretary.

The convention developed great diversity of opinion. Mr. Young's letter was a sort of bombshell. The majority believed there was over-production of cotton goods and a need to remedy it. Mr. Young thought the over-production more apparent than real. The mills carry the stocks now instead of the merchants. The mills must curtail production enough to force distributors to seek the mills. He thought the mills must act for their individual interest.

The business committee, Hickman, Cawthorn, Hammett, Bullock and Bloomfield, reported in favor of organizing a Southern and Western Manufacturing Association, and the appointment of a committee of 15 to do it, and reported a resolution recommending spinners and manufacturers to reduce production in proportion to the reduced quantity of raw material now in the country.

The report to organize an association was adopted, and the executive committee to carry it into effect consist of:

J. F. Hanson, Macon, Ga.  
H. H. Hickman, Graniteville, S. C.  
C. H. Phimzy, Augusta, Ga.  
G. T. Jackson, Augusta, Ga.  
Charles Estes, Augusta, Ga.  
H. P. Hammett, Piedmont, S. C.  
R. B. Bullock, Atlanta, Ga.  
W. E. McCoy, Augusta, Ga.  
J. F. Cawthorn, Enterprise, Miss.  
J. T. Inman, Atlanta, Ga.  
J. C. Walker, Athens, Ga.  
R. C. Bloomfield, Athens, Ga.  
D. E. Converse, Clifton, S. C.

The resolution recommending curtailment of production was discussed and voted down, because not strong enough, and a substitute was adopted to refer the matter to the committee of 15 to mature a plan for checking production. A subsequent resolution was passed declaring the sense of the convention to be that the production of yarns by Southern mills be curtailed.

There was lively discussion. Messrs. Hickman, Jackson and Hammett were for referring the matter to the committee. Messrs. Hanson, Bloomfield, Phimzy, Walker, Cawthorn, Sibley and Inman advocated specifying a general cut of production. Messrs. Estes and Barber urged putting up prices. The difference of opinion was so marked and broad that concurrence was out of the question. They were all agreed as to over-production, but disagreed as to remedy.

Mr. Hammett paid 10% dividends and had more orders than he could fill. He was for Southern economy.

Mr. Hickman said there were too many brown goods. Reduction is the interest of manufacturers.

Mr. Boehm thinks tariff agitation and jobbers forcing mills to carry goods at the bottom of trouble. Gov. Bullock favors protection. I. W. AVERY.

## MANUFACTURING.

Subscribe to the Baltimore Manufacturers' Record. Price \$3 per year.

BALTIMORE.

MR. JOHN B. ADT, engineer and machinist, North Holliday street, reports business as very brisk. He has on hand some large jobs for firms in the South. His business has been on the increase for some time past.

MR. DAVID JOHNSTON, North Holliday street, reports a growing trade in the South. He has a good supply of city orders.

A FACTORY has been established at No. 158 Forrest street for the manufacture of decorative plate glass,—a perfect imitation of polished marble. It is designed for wainscoting vestibules, halls and rooms, and can be given any form or color. For full description send to the manufacturers for circulars.

F. H. FOLSON, millwright and mechanical engineer, East Falls avenue, looks for a heavy spring and summer business. He has just fitted a new factory in the city, and is putting new machinery in a mill in the South.

MESSRS. JOHN T. COLEMAN & SONS, Holliday and Pleasant streets, have a large amount of repair work on hand. In addition to this they have a liberal amount of new work for parties in the city. Their business is steadily increasing, and the indications point to a heavy spring business.

MESSRS. W. J. CLARK & BRO., manufacturers of the well-known improved patent hydrant, have sufficient orders on their books for future delivery to keep them going for some weeks. So well are parties pleased with this hydrant, after giving a full test, they have more than doubled their orders, and merit is building for them a large demand.

IN GENERAL.

THE Louisville, Ky., Woolen Mills have just placed their order with the Bridesburg

Manufacturing Co. for another set of woolen cards and two 324-spindle self-acting mules same as last ordered.

THE Durham Cotton Mills, of Durham, N. C., lately organized, will put in the top flat card, Rabbeth spindle, and sheeting loom. They have placed their order for everything with the Bridesburg Manufacturing Co., of Philadelphia. The mill will run 8,500 spindles.

MR. MERWIN MCKAIG, iron founder, machinist and boiler maker, of Cumberland, Md., writes us that he "is very busy now building his improved 'Mogul' engine, the Keystone roller mills, pulleys, shafting, mill gearing, and Anderson's patent self-oiling mine car-wheels, of which some of our coal companies are using over 500. I have put a number of new tools in lately, and it is more than likely I shall have to put in more shortly."

HOWARD, BULLOUGH & RILEY, of Boston, Mass., have received the order for slubbing and roving frames from Laurel Hill, N. C.

## Cotton Manufacturing in the South.

What a Properly Managed Mill Can Do—Report of the Exposition Cotton Mills, Atlanta, Ga.

To the Stockholders of the

Exposition Cotton Mills:

Gentlemen—Below I give you an exhibit of the condition of your company as taken from the books on the 29th of March, 1884:

This company commenced receiving and placing its machinery in position about fifteen months ago. A start in a small way was soon made and a part of the machinery put in motion. Work was carried on while the whole of the machinery was being placed, and the mill stood fully equipped and in running condition January 1st, 1884, when we had a total equipment of 16,188 spindles and 480 looms, at a total cost of \$344,215.37, being \$21.26 per spindle, which places your mill on a basis of very reasonable cost per spindle, the usual cost in new mills of like character being from \$30 to \$32 per spindle. During the period from start to this date we labored under the difficulties that always attend new machinery, raw help and general inexperience. In addition we twice changed superintendents and had to contend with a serious decline on the cotton carried over into the summer of 1883. So it was scarcely to be expected that earnings would fairly begin till the beginning of the second half of last year, say October 1st, 1883. At that date the books showed we had about kept even on our efforts at starting.

From that time till the present date, a period of six months, I am glad to report an earning of \$21,193.73, equal to six per cent. for the six months on our present capital stock of \$350,000. But when it is remembered that the call for the last \$100,000 on the stock was only made and the money paid in about January 1, 1883, it is nothing but fair to credit the \$250,000 in actual use for six months, with at least eight per cent. earnings for the six months. When we consider the difficulties of the period between October 1, 1883, and the present date we cannot but congratulate ourselves and take courage for the future.

Never, perhaps, in the history of cotton spinning has there been, in the United States, such a disparity between the price of cotton and the price of goods. There has been almost universal suffering among cotton manufacturers, and great depression in goods such as we make. We have succeeded, however, in establishing the reputation for our goods and laying the foundation for profitable work.

I recommend that from the earnings of the past six months a dividend of 4 per cent. be paid on the full \$350,000 stock, which will leave \$10,074.04 to go to reserve

account. While it is usual for cotton mills to place part of their earnings to reserve account, and I recommend a strict continuance of this policy, still our corporation seems, in view of the rapid growth of Atlanta, to be most fortunately situated; for at the rate at which Atlanta is growing, and which we all confidently expect to see her continue, the end of 20 years (the ordinary life of machinery) will find our plant standing almost in the heart of the city, and the fifty acres of land on which we stand probably worth much more than the whole capital stock.

This is a pleasant anticipation. Still we should deal only with facts; and knowing that our machinery will wear out, it should be the policy of the present and future management to see that each year a full amount be placed to a reserve fund.

From my experience I am firmly convinced that it will require the full time and attention of the president to make our mill as successful as it should be.

I find that I am not in a position to give the time demanded without doing injustice to other interests, and I, therefore, must decline a re-election to the presidency.

In doing so, however, I feel that if my successor is the Hon. D. N. Speer, the interests of the corporation will be better served than ever. It is very fortunate that he has given his consent to take the position. As treasurer of the State of Georgia he has shown his ability to meet any difficulties that may arise in the matter of administration and finance.

In closing this report I cannot but bear testimony to the great assistance given me by Mr. R. B. Gunby, our faithful and efficient secretary and treasurer.

Coming to us with large experience he has given his full time and attention to the work before him, and has rendered great service to the corporation.

With gratitude to every stockholder for the forbearance and kindness extended during the trying period of the organization and starting of this new enterprise, I respectfully submit the figures as given in the statement below.

HUGH T. INMAN, President.

THE advantages of American machinery over the clumsier manufactures of Great Britain have seldom been more plainly manifested than in recent shipments made to Mexico. In transporting heavy and bulky articles into the interior, the charges are severe, and the additional weight of a hundred pounds runs the scale down against the profits. American machinery is as light-weighted as is consistent with safety and economy in action, while British machinery is as heavy-weighted as is oftentimes possible without clogging free action. This has been especially apparent in the case of an engine of English pattern, which had to be literally stripped before it could be brought into profitable competition with others constructed upon the same general principle, but made in this country.

## Important to Southerners.

Persons arriving in New York via Cortland Street Ferry, by taking the 6th Avenue Elevated Train, corner Church and Cortland streets, can reach the Grand Union Hotel in 42d street, opposite Grand Central Depot, in twenty minutes, and save \$3 carriage hire. If en route to Saratoga or other summer resorts via Grand Central Depot, all baggage will be transferred from hotel to this depot free. 600 elegantly furnished rooms \$1 and upwards per day. Restaurant the best and cheapest in city. Families can live better for less money at this hotel than at any other first-class hotel in the city.



### A Permanent Industry.

#### The Bicycle and Tricycle Trade in America—The Columbia Cycles.

The manufacture of bicycles is a business with a brief history, but it has already assumed very large proportions. There are in this country about a dozen bicycle manufacturers and importers, with some five hundred agencies. The bulk of the home manufacture of first-class machines is done by the Pope Manufacturing Co., of Boston, Mass., (the factory at Hartford, Conn.,) makers of the Columbia bicycles

rider; and, though it has been lightened somewhat for this season, it is done so in mostly unnoticeable but costly ways, and so as not to impair its stanchness.

An improvement especially invented for this machine is the hemispherical or ball-steering centre. A cubical hardened-steel step below, and a hardened-steel adjusting-bolt above, afford concave hemispherical bearings for the convex hemispherical-ended spindle (also case-hardened for bearings;) and this arrangement is superior to conical centres in several respects,—more perfect adjustment, more even bearing,



THE EXPERT COLUMBIA BICYCLE.



THE COLUMBIA TRICYCLE.

and tricycles. These machines being the standard of American cycles, a brief description is given of them, mostly condensed from the company's catalogue for April, 1884.

The Expert Columbia bicycle met with unparalleled success and popularity last season, and justifies the company in keeping it to the front as their best machine. It is a medium weight bicycle, in which strength has not been sacrificed for lightness, nor durability for cheapness. It was designed to stand hard and long usage on any road by any weight and strength of

greater durability, etc. These steering-centres are four inches apart,—a length of spindle which is sufficient for absolute strength and rigidity,—and they are held by such means as to give both adjustment and security. Very short heads and very short centres have both gone mostly out of use, as very long centres did some time before.

The Expert is furnished only in three styles:—half nicked and painted, half nicked and enameled, and full nicked.

The Standard Columbia bicycle has well earned the name of "old reliable," and it

has gone into the largest use of any bicycle in America. It is a stanch and reliable machine for beginners, and for all around road use. It was designed to meet the want, still widely felt, of a substantial, first class road machine at a moderate price. It is made throughout of the best-suited qualities of steel for the various metallic parts, and "Para" rubber for tires and pedal-bars. The bearing-surfaces are all case-hardened, and the tubes are of weldless steel; the handles are of large size, and either vulcanite or rubber, according to the size of machine; and the saddles are best hog-skin leather, stretched to steel suspension-plate. All the parts of the Standards are made by machinery of accuracy, and are interchangeable. The principal parts, as heads, forks, hubs, cranks, brake-levers, etc., are die-forged; the rims are die-trued and welded by our patented method, and are of peculiarly strong section; and the perch is brazed to the neck and rear fork. The proportions and securements of the various parts have, by long experience and careful study, brought to such correctness that the percentage of breakage and wearing of our machines is so little, and springing, buckling or loosening so little, as to be remarkable and proverbial.

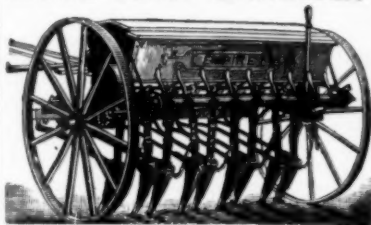
The Columbia Tricycle was first brought out last summer, and at once took the highest rank as a machine in which was embodied the very best of material and workmanship. It is scientifically and practically constructed, as well made and as handsome as the Expert Columbia bicycle. It is a comparatively light machine, as light as is possible to build a like machine and yet have it a practical roadster. It is a "double driver," the propulsion operating evenly and directly upon both driving-wheels. By a very ingenious compensating gear the distribution of power to the two driving wheels is in proportion to the resistance, equal on a smooth, straight course, more to the outer wheel on a curve, and more to the trigged wheel where obstruction is unequal. The seat is adjustable, fore and aft, and vertically, and the friction brake, an arrangement by which almost unlimited pressure can be given, will bring the machine to a standstill on the steepest incline. The bearings are all ball-bearings—two sets on the main shaft, two sets on the crank shaft, one set in the front wheel, and two sets in each pedal. This tricycle is for general road use, under all supposable circumstances—It will carry its rider wherever a bicycle will go, and at a very little more labor.

Bicycle making has become an American industry, and one which reflects great credit upon the American workman. The following, clipped from the Pope Manufacturing Company's catalogue, speaks not only in unmistakable praise of the Columbia machines, but pays an emphatic compliment to the skill of American mechanics:

"In 1883 there were, according to the careful report and table of Mr. Hazlett, seventy successful participants in all-day runs of one hundred miles and upwards, with bicycles and tricycles, on American roads; and they covered in all 7,773.47 miles,—an average of 111.5 miles in the day each. We find that fifty-six per cent. of the machines used were Columbias, and over fifty-five per cent. of the distance covered was done on Columbias; and further, that of those who rode more than the average distance, more than sixty per cent. were on Columbias, and that those riding above one hundred and ten miles, and on Columbias, made the fastest rates of speed and the shortest riding times, and that the two longest distances, each two hundred and one-sixteenth miles, were made on Columbias."

For more detailed descriptions of these "cycles" send to the Pope Manfg. Co., Boston, for their illustrated catalogue.

## EMPIRE DRILL.



### With Force-Feed Fertilizer Attachment.

Any brand of commercial manure sown with accuracy. **NO GUESS WORK.** Over 8,000 in use, giving unbounded satisfaction.

### Sheldon Self-Dump RAKES and Excelsior Horse-Poke.

All three Implements first-class in every respect. Address inquiries to

EMPIRE DRILL CO., 10 Swan St., Baltimore.

## ENGINES, BOILERS, &c.

For Sale Low.

- 1 Porter Horizontal Engine, 50-H. P. New
- 1 " " " 18-H. P. "
- 1 " " " 25-H. P. "
- 1 " " " 4-H. P. "
- 1 Birdsall Traction Engine, 10-H. P. "
- 1 " " " 10-H. P. "
- 1 " " " 8-H. P. "
- 1 " " " 8-H. P. New.
- 1 Wood, Tabor & Morse, 8-H. P. Second hand.
- 1 Curley Saw Mill, No. 2. New.
- 1 Novelty Saw Mill. New.

Also Engines, both Portable and Stationary, any size, or any size or description of Boilers.

The Gardner 3-Cylinder Engines.

Snyder's Little Giant Engines and Boilers.

Low Prices guaranteed. Send for Estimates, stating size wanted and purpose to be used for, to

WM. R. EMERSON,

6 and 8 North Liberty St.,

BALTIMORE.



### THE PERFECT Towel Holder

is selling very fast in the East, and is meeting with well-merited success. This little article should be in every place where a towel is used, as it saves towels and at the same time saves trouble. We will send a sample with prices for 15 cts., or a sample dozen for \$1.00.

Haff & Co., Box 24,

HARTFORD, CONN.

Patent applied for. Cut Half Size.

## THE SOMBART Gas Engine

PATENT

Started Instantly. No Fire to Build. No Boiler to Watch. No Engineer Required. No Coal nor Ashes. No Water Needed.

NO DANGER OF EXPLOSION! Four Sizes, 1/2, 1, 2 and 3-horse-power, (Actual.)

When stopped all expense ceases. The most convenient and cheapest Motor for small power ever made. Just the thing for Printing Offices, Laundrys, Jewelers, Saddlers, Coffee Mills, Small Shops, etc.

Sombart Gas Engine Co., HARTFORD, CONN.

For sale by Jackson & Tyler, 16 S. Howard St., Baltimore.



## SCALES,

Anvils, Vises, Portable Forges, Blacksmith's Tools, Hardware Specialties. Send for Price-List.

Chicago Scale Co., CHICAGO.



## Talladega, Ala.

An Age representative was last Friday entertained by a few minutes of instructive conversation with Mr. William Morris, of Talladega, concerning the many mineral resources of Talladega county. Mr. Morris came over to Birmingham to show specimens of fire-clay, such as is specially adaptable to the uses of furnaces and rolling mills. Mr. Morris showed the Age man a specimen of this clay, which had been tested over the bridge wall of a heating furnace at the Birmingham Rolling Mills and subjected to a heat of 4,000 degrees continuously for four days. The test was stood with the most gratifying result. Mr. Dwyer, superintendent of the rolling mill, regards the clay as fine as any he has ever tested or known of for furnace or rolling mill use.

Samples of the clay were sent yesterday to experts at a distance. Some was sent to members of a Philadelphia fire-brick company, who had been here last year with an eye to establishing fire-brick works in Birmingham, provided the right material could be discovered convenient. The clay evidently will supply the want, especially as it is said to exist in inexhaustible quantities and is easily accessible to transportation.

The Birmingham furnaces buy fire brick from Northern works for about \$48 a thousand, and brick suitable to every purpose, it is claimed, can be made of this clay close to Birmingham for less than \$25.

The Age man saying it was a matter of

## "Always Ready Wrench."

THE accompanying cut represents a new and most convenient wrench, now being extensively manufactured and put on the market by the Portsmouth Wrench Company, office 19 Pearl street, Boston, Mass. This wrench was patented July 18th, 1882, and is very appropriately named the "always ready wrench," as in this article it may be said we have at last a wrench that is always ready for immediate use. No adjusting or setting is required, fitting perfectly any sized nut from  $\frac{1}{4}$  to 2 inches, and will also securely hold and turn round iron or piping of any kind. It is claimed by the manufacturers that this is one of the most convenient and durable wrenches ever invented for machinists, carriage makers, blacksmiths, weavers, spinners, carders, and in all departments of mills and factories, as well as for the farmer and housekeeper. They are first-class in every respect, being manufactured from the best prepared steel, forged and tempered in oil. They are very attractive, being highly polished and nickel-plated, and the hardware trade who have supplied themselves are finding a ready sale. It will be seen at once that the company have an abundance of capital, push and energy when we state that the officers are Hon. Frank Jones, (formerly member of Congress from New Hampshire,) president; and J. Albert Walker, of Portsmouth, N. H., treasurer.

## List of Patents.

The following patents were granted to citizens of the Southern States, bearing date April 1, 1884. Reported expressly for this paper by Louis Baggett



"ALWAYS READY WRENCH."

surprise that the great variety of mineral riches in Talladega had not excited more general interest and enterprise, Mr. Morris heartily agreed with the reporter. "Nearly every prospecting party in Alabama," said Mr. Morris, "comes to Birmingham with his head full of ideas about coal and iron. This is a sort of central point for them, and consequently they rarely get over into Talladega." Mr. Morris then named the well-known numerous mineral properties of Talladega. The county is particularly blessed in marble, kaolin, cement and brown hematite.

"What has become of Talladega's gold?" was a question.

"Gold is still there in sufficient quantities, but it is not profitable to work on account of the sulphurets associated with it." Mr. Morris said he knew of an instance where a party had worked four batteries with two stamps on the natural soil and paid expenses for four months. But this was abandoned. The ordinary process did not invite any great outlay of capital.

Mr. Morris spoke of Talladega's new advantage in the approaching opening of the Coosa Valley coal mines, 12 miles from Talladega. Talladega would get this coal for \$2.50; Montevello coal was now used at a cost of from \$6.50 to \$7.—Birmingham Age.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the BALTIMORE MANUFACTURERS' RECORD. We are always prepared to furnish proof of our claims as to circulation.

& Co., mechanical experts and solicitors of patents, Washington, D. C.

- 296,102. Allen, R. W., Nelly's Ford, Va. Hilling and fertilizing machine.
- 296,105. Andrews, Louis, Arkansas City, Ark. Division-plate for oil-presses.
- 296,121. Branch, Daniel W., Troy, Ala. Cultivator.
- 296,131. Campbell, Robert, Wheeling, W. Va. Paving-block.
- 296,142. Dantzier, D. D., Chester, S. C. Horse-detacher.
- 295,989. Estman, H. W., Baltimore. Ventilating.
- 295,997. Gilbert, J. W., Hoboken, Ala. Motor for light machinery.
- 296,160. Goodbody, A. G., Louisville, Ky. Binding-post for electric conductors.
- 296,285. Gurney, W. G., Baltimore, Md. Process apparatus.
- 296,007. Holden, W. G., Corpus Christi, Texas. Spring-bottom camp-bed.
- 296,172. Holloway, C. T., Baltimore, Md. Cut-off nozzle.
- 296,191. Lawlor, J. H., Baltimore, Md. Paper-cutter and die-press.
- 296,025. Marberry, A. J., Cabot, Ark. Cultivator.
- 296,199. Maxwell, S. F., Clifton, W. Va. Machine for crozing staves.
- 296,302. McKinney, MacN., Jackson, Miss. Churn.
- 296,295. Myers, F. A., Wheeling, W. Va. Piston-rod packing.
- 296,045. Oliver, Jas. C., Louisville, Ky. Buggy top.
- 296,211. Park, H. S., Henderson, Ky. Electro-magnetic car-brake.
- 296,212. Park, H. S., Henderson, Ky. Electro-magnetic car-brake.
- 296,939. Rickle, W. C., Nechesville, Tex. Combined seed-planter and fertilizer distributor.
- 296,007. Poole, George, Baltimore, Md. Machine for driving endless ropes for the propulsion of street-cars.
- 295,942. Havenscroft, W. S., Parkersburg, W. Va. Caster-wheel and die for making the same.
- 296,229. Rodgers, W. C., Owlet Green, Tex. Portable saw-mill.

- 295,952. Starke, E. D., Richmond, Va. Plow.
- 295,956. Trabue, J. H., Louisville, Ky. Car-coupling.
- 295,964. Williams, Warren, Lumberton, N. C. Saw guide.

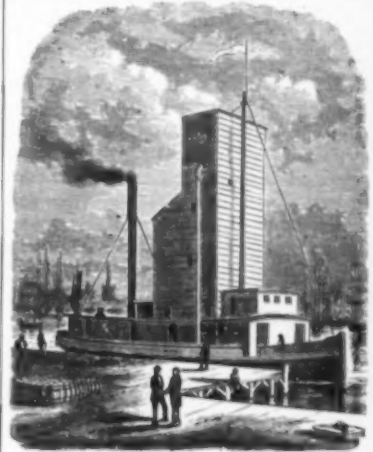
## The Southern Cotton Spinners.

The telegraphic report of the proceedings of the convention of Southern spinners at Augusta is of more interest and importance than would at first appear. Nothing was done, and there seemed to be a lack of harmony on the part of the mill men; but the report goes below the surface to some extent, and enables us to view the situation from the various standpoints of different spinners. A superficial reading of our report would indicate a great lack of harmony, but this lack of harmony was apparent and not real. A more extended discussion would have brought harmony out of the differences of opinion that existed, but it is hardly possible that a majority of the spinners would have voted in favor of shutting down their mills temporarily or even in favor of shorter time.

In point of fact, a majority of the spinners were opposed to any movement looking to a general shutting down, but were in favor of allowing the managers of each mill to look out for their own particular interests. With this there was an undercurrent of joviality and good humor, quite as significant as any of the statements made. The spinners who assembled in convention neither spoke nor acted as men who are under any stress of hard times, or in any sort of distress either as to the present or the future. Their attitude was that of men who appreciate the advantages they possess and are anxious to make the most of them. If they were laboring under any other disadvantage than a temporary depression in trade there would have been no substantial disagreement as to the remedy; for they are all men of affairs, quick to perceive their own interests and prompt to act.

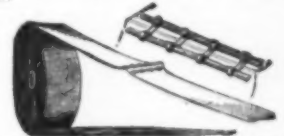
It is true the business of cotton manufacturing is not as profitable in the South just now as it was several years ago; indeed, it is not as profitable just at present as it promises to be in the near future; but the term "profitable" is a relative one. Instead of making from fifteen to thirty per cent. on the capital invested, the successful mills are only making from ten to twenty per cent. All the established mills, as the discussion in the convention shows, are doing well. Some of them, indeed, have had hard work to fill orders during the past year. Where a mill is managed with economy and discretion and is not too far away from cheap fuel (when it is run by steam power) the depression in trade has caused no great inconvenience.

The depression seems to be in all grades of cotton goods; but so far as the coarser grades are concerned, the real distress exists among mills North of the Potomac, which cannot successfully compete with the Southern mills in the manufacture of the coarser grades of goods. The overproduction complained of is the result of an attempt on the part of the Northern mills to drive the products of Southern mills out of the market. Having failed in this, a great many of them are now ready to shut down or close out entirely. To cite an instance, the Hooper mills in Maryland, five in number, run on short time. Three run only five days in the week. The managers say the outlook is very gloomy and that the worst has probably not been reached. But they do not attribute the depression altogether to over-production. They say the Southern mills are the cause of the trouble, and the trouble is competition. No mills have stopped in Maryland, but the A. Campbell Manufacturing Company, of Manassas, Pa., are about to shut down, their mills having been run at a loss for several months. The managers of these mills declare that the competition of the Southern mills is so effective in the coarse grades of goods that there is no longer any money made by Northern manufacturers.—Atlanta Constitution.

F. H. FOLSOM,  
Millwright and Mechanical Engineer,

18 East Falls Ave., BALTIMORE, MD.

All work executed and Drawings furnished at shortest notice for Floating and Stationary Elevators, Flour Mills, Malt Houses, Breweries, Saw Mills, Fertilizer Factories, Sumac Mills, Paper Mills, and all other kinds of Machinery.—Orders by mail promptly attended to at lowest prices.



Agent for Seldner's Improved Belt Fastener.

—Send for Circular and Sample.—

## Derby Roll Top Desks.

—Best Office Desk in the World.—



Cherry, Walnut, Oak, Ash and Mahogany.

Send for Illustrated Catalogue.  
DERBY & KILMER DESK CO.  
55 Charlestown St., Boston, Mass.

## E. J. CODD &amp; CO.

Foundry, Machine and Boiler Works,  
255 to 261 S. Caroline St., BALTIMORE.

—BUILDERS OF—

Stationary and Marine Boilers, Stills, Tanks, Agitators, Kettles, &c., Stationary and Marine Engines, Fertilizing Mills, Steam Dredges, &c. Prompt attention given to Steamship, Mill and other Repairs. Iron and Brass Castings made to order.

—ESTABLISHED 1865.—

## Steam Boilers

JOHN T. COLEMAN & SONS,  
Steam Boiler Works,  
Cor. Holliday and Pleasant Sts., Baltimore.

Manufacturers of all kinds of Steam and Bath Boilers, Smoke Stacks, Water Tanks, Lard Kettles, &c. Particular attention given to repairs.

## WIRE RAILING

and Ornamental Wire Works.  
DUPUR & CO., 36 N. Howard St., Baltimore.  
Wire Railing for Cemeteries, Lawns, Gardens, Offices and Balconies; Window Guards, Tree Guards, Wire Cloth, Sieves, Fenders, Cages, Sand and Coal Screens, Iron Bedsteads, Chairs, Seetees, &c.



### A Shipbuilding Enterprise in the South.

A new enterprise just organized in the South by New Englanders is the Virginia Iron Shipbuilding Company, which, with a capital of a million dollars, will build iron and steel ships at Alexandria. The company is composed of wealthy and energetic business men of Boston and Maine, among whom are Capt. J. B. Thomas, of Boston, Capt. Goss, of Bath, Me.; Mr. C. E. Moody; of Boston, and other men of like character and prominence. They have purchased a large area of property, having a frontage of a thousand feet on the Potomac, with a depth of thirty feet at the shore. Here they will obtain by a comparatively moderate investment of money the finest iron ship-yard in the United States. These capitalists have carefully considered this matter and acted advisedly in selecting Alexandria as the place to establish this great enterprise. They believe it to be the most favorable point to which to bring iron and coal to the tidewater for ship-building purposes.

They expect to bring their entire force of workmen from elsewhere, as there are no available skilled mechanics such as they desire in Alexandria. Two prominent Boston gentlemen will soon sail for Scotland to secure a force of workmen from the Clyde establishments, where ship-building is now very dull. The main advantage possessed by the locality selected is that of climate. It is believed that workmen in that climate can labor out of doors more days in the year than anywhere else in the United States. A still more important consideration is that the medium temperature makes it a much better place to rivet iron and steel plates together than any point either to the North or the South of the Potomac. It is expected that work will be begun on a 2,000-ton iron vessel during the present season. —Charleston News and Courier.

### Building Plans.

If any of our readers are thinking about building a cheap or a costly residence, a public building, a church, a factory, a business block, a bank, a barn, or any kind of structure, or of remodeling an old house, or of decorating a house in modern style, they will find it to their interest to correspond with the Building Plan Association, No. 24 Beekman Street, New York.

CINCINNATI is probably better supplied with good hotels than any other city of its size in the United States, and one of the best of them is the Palace Hotel, corner Vine and Sixth streets. Under its new management it has grown wonderfully in popularity, and it has a constantly increasing patronage. Travelers will find it about all that is to be desired in the way of a first-class hotel.

## THE MARKETS.

OFFICE MANUFACTURERS' RECORD, }  
BALTIMORE, April 9, 1884. }

The general business situation apparently continues to improve, and the outlook now indicates a fair degree of activity in most industries. In some lines of manufactures there is still considerable depression, but in others, which have for some time been in the same condition, there are signs of improvement.

Trade for the past week in manufactured iron has somewhat improved, though still continuing depressed and backward for the season, with values badly cut to induce business. We repeat quotations, viz:

Ref. Bar Iron, 1 to 6x 1/2 to 1.....	2 1/2 @ 1-10c
" " " 1 to 4x 1 1/2 to 1.....	2 1/2 @ 1-10c
" " " 1/2 to 3, round and.....	2 1/2 @ 1-10c
Square.....	2 1/2 @ 1-10c
Hoop Iron, 1 1/2 wide and upward.....	2 1/2 @ 1-10c
Band Iron, from 1 1/2 to 8 in. wide.....	2 1/2 @ 1-10c
Horseshoe Iron.....	2 1/2 @ 1-10c
Norway Nail Rods.....	2 1/2 @ 1-10c
Black Diamond Cast Steel.....	2 1/2 @ 1-10c
Machinery Steel.....	2 1/2 @ 1-10c
Spring Steel.....	2 1/2 @ 1-10c
Common Horse Nails.....	2 1/2 @ 1-10c
Railroad Spikes, 5/8 x 9-16.....	2 1/2 @ 1-10c

In our market the demand for pig iron has been rather quiet and sales only moderate at former prices, viz:

Baltimore Charcoal Wheel Iron (all Baltimore ore).....	23 00 @ 22 00
Virginia C. B. Charcoal Wheel Iron.....	23 00 @ 22 00
Anthracite, No. 1.....	21 00 @ 20 00
" " " No. 2.....	20 00 @ 19 00
" " " No. 3.....	18 00 @ 17 00
" Mottled and White.....	16 00 @ 15 00

## HARDWARE.

There are few changes in prices to note, though the trade is moderately good, and is on the increase.

The nail market is firm, with orders increasing quite freely and prices quoted as before at \$2.50@2.60, according to quantities.

### Philadelphia Iron Market.

PHILADELPHIA, April 7, 1884.

The past week has been characterized by a little activity in pig iron, but in small lots mainly and at inside prices. But the condition of the market generally is very dull and depressed, and there are no indications that there will be any improvement in the immediate future. Good foundry irons are in light supply, and for them prices are quite firm, but there are signs of weakening in inferior brands. One or two lots of chickies sold at \$21.25, but sales over \$21 are rare, and most of the iron is selling at \$20 and \$20.50 for No. 1; No. 2 sells at \$19 to \$19.50. Forge irons are quiet at \$18 to \$19 delivered for good brands. Some sales of poor iron have been made as low as \$17 and \$17.50. There is very little movement in foreign irons; Bessemer has sold in small lots at about \$20.50, with a few lots of special brands, for open hearth purposes, at a little over \$21, but the aggregate of business is not large. Spiegel-eisen shows a little weakness and is now offered at \$29. Manufactured iron is in a very discouraging condition; prices are weak and demand very irregular. The competition of Western iron is having a very depressing effect upon this market. Freighters are so low as to allow of the offering of Western bars here at prices which are lower than our manufacturers can meet,—1.70 to 2 cts. is usually quoted; the latter price is held for only the best refined iron. Some mills have closed down temporarily and will not resume until the spring demand begins in earnest; others are very poorly supplied with orders and very few are fully employed.

The plate, tank and structural mills are working along, with only a fair supply of orders in hand. There are numerous inquiries for large lots, and several specifications are in hand; so that manufacturers feel sure that they will have a good deal of work as soon as buyers have a little more confidence, and can be induced to place their orders. The nail mills are making a large output, and are meeting with quite a good demand, although it is for current requirements only, consumers thinking that on account of the large producing capacity they are safe in deferring heavy purchases. Wrought pipes and tubes are moving very slowly for the season. Steel rails show a weakening tendency. During the week one or two orders were taken at very low prices, but the usual prices are \$34 to \$34.50 for ordinary lots. Less would probably be accepted for large lots, but heavy buyers are not in the market, and large business is not near at hand. Old material would sell at \$21.50 to \$22 in considerable quantities, but holders are holding prices too high for much business to be done. Scrap iron is quiet at \$23.50 to \$24.50 for No. 1.

### Cincinnati Iron Market Report.

Specially reported by ROGERS, BROWN & Co., Pig Iron Commission.

CINCINNATI, April 7, 1884.

The week has been entirely without features of significance in the pig iron market. A small business has been done in orders for immediate delivery, but beyond this there is but little to record. With fair weather and dry stock, the furnaces are doing better and are catching up with overdue orders. Toward the close of the week there were somewhat better inquiries looking to orders for round lots for future delivery. Some large sales of Southern car-wheel iron are reported. Mill irons are in moderate request, with prices unchanged. Prices throughout the entire list show no change whatever. Furnaces are unwilling to make any concessions unless in a case of weak holders or off lots. Our

quotations are for cash f. o. b. cars at Cincinnati, as follows:

HOT-BLAST FOUNDRY.	
Hanging Rock C. C. No. 1.....	21 50 @ 23 00
" " " No. 2.....	19 50 @ 22 00
Southern " " ".....	20 00 @ 21 00
Strong Coke, " " ".....	18 50 @ 19 50
" " " " ".....	17 00 @ 18 00
Soft Stone Coal, " " ".....	19 00 @ 19 50
" " " " ".....	17 50 @ 18 50

FOURGE.	
Strong Neutral, No. 1 Mill.....	16 50 @ 17 00
Cold Short, " " ".....	15 50 @ 16 00

CAR WHEEL AND MALLEABLE.	
Hanging Rock C. B. ....	30 00 @ 31 00
" " " " ".....	21 00 @ 24 00
Southern Car-Wheel Iron.....	24 50 @ 25 50
Lake Superior " " ".....	24 50 @ 25 50
" " " Malleable.....	24 50 @ 25 50

Specially reported by E. L. HARPER & Co.

CINCINNATI, April 7, 1884.

The market is without animation, and business, in the main, is confined to orders for immediate consumption. The depression in trade cannot well reduce prices further, as the current selling figures represent about the cost of production. The return of settled weather will contribute liberally to the increase of general business, in which the iron interests will participate. We quote as prices current:

FOUNDRY.		FOUR MONTHS.	
Hanging Rock Charcoal, No. 1.....	22 25 @ 23 25	" " " " ".....	21 25 @ 22 25
" " " " ".....	21 25 @ 22 25	" " " " ".....	18 50 @ 19 00
Strong Neutral Coke, " " ".....	17 50 @ 18 00	" " " " ".....	19 00 @ 19 50
American Scotch, " " ".....	16 50 @ 17 00	" " " " ".....	16 25 @ 16 75
Neutral Coke.....	16 50 @ 17 00	" " " " ".....	16 25 @ 16 75
Cold Short.....	16 25 @ 16 75	" " " " ".....	16 25 @ 16 75

CAR WHEEL AND MALLEABLE.	
Hanging Rock, strictly cold blast.....	21 00 @ 24 50
" " " " ".....	21 00 @ 24 50
Lake Superior Charcoal, all grades.....	24 00 @ 25 00
South. Car Wheel, strictly cold blast.....	26 00 @ 26 50

### Chattanooga Iron Market.

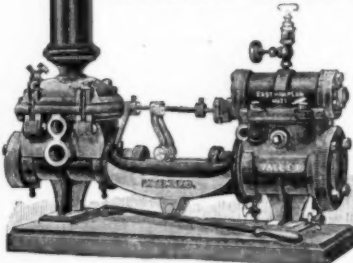
Specially reported by S. B. LOWE.

CHATTANOOGA, TENN., April 7, 1884.

The most notable event of the week has been the blowing in of the Citico Furnace. On Friday, the 4th instant, at 5 o'clock precisely, the valves were opened, the huge wheels commenced to turn and the immense plant started out on her mission of producing iron. Everything works like a charm,—no stopping, no breaking loose, nor leakage of the joints, but her entire machinery seems to work with the perfection of maturity, and so we note the starting up of one of the largest and best equipped furnaces in the United States. There is no material change in prices, which we quote:

No. 1 Foundry.....	18 00 @ 19 00
No. 2 Foundry.....	17 00 @ 18 00
Gray Forge.....	14 00 @ 15 00
Car-Wheel Metal.....	25 00 @ 26 00
Ores, Brown and Red.....	1 50 @ 2 00
Furnace Coke.....	2 00 @ 2 20
Nails, car load lots.....	2 50 @ 3 00
Bar Iron.....	1 85 @ 2 00
Old Rails.....	21 50 @ 22 00
Old Wheels.....	16 00 @ 17 00
Wrought Scrap, No. 1.....	15 00 @ 16 00
" " " No. 2.....	11 00 @ 12 00
Spikes (Railroad).....	2 40 @ 2 50
Splice Bars.....	1 50 @ 1 60
Light Rails.....	2 15 @ 2 25

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Best  
Boiler Feed  
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in the  
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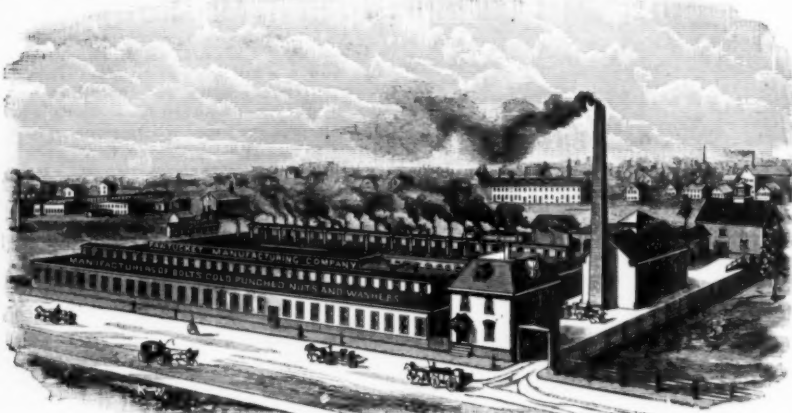
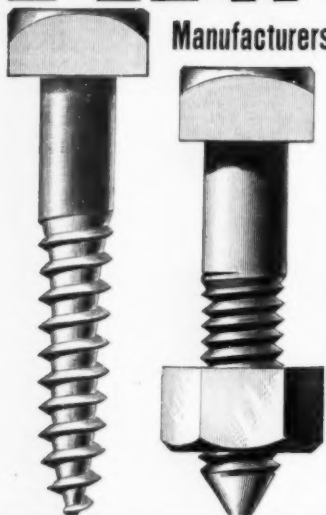




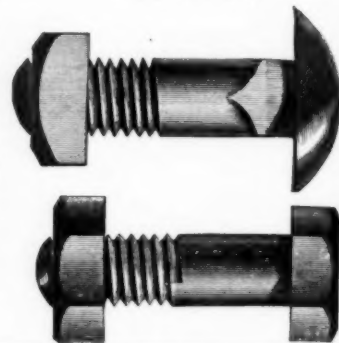
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OF ALL KINDS.



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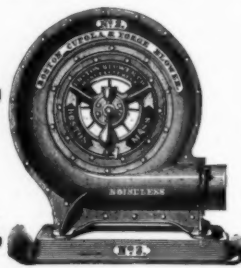
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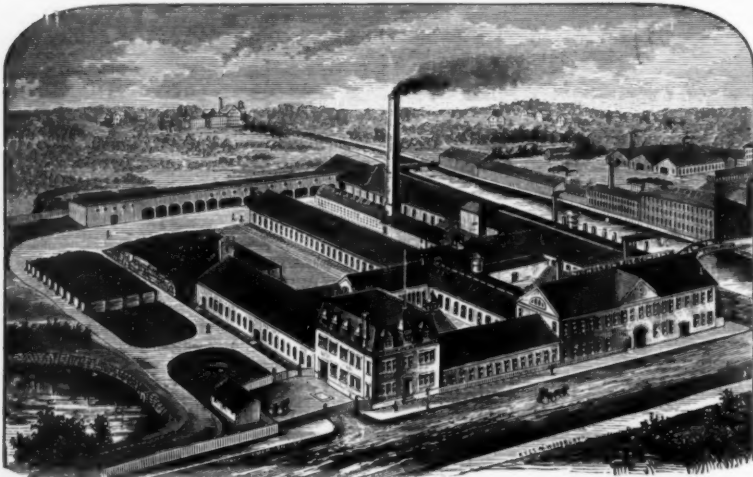
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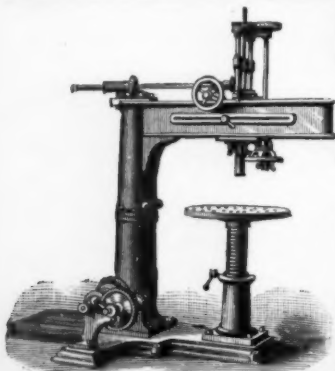
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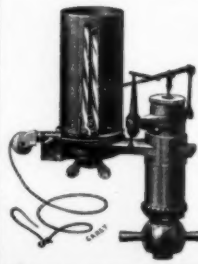
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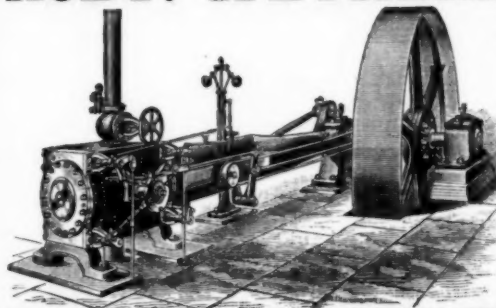
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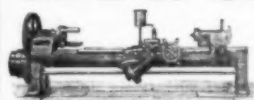
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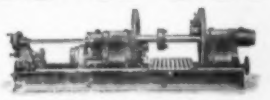
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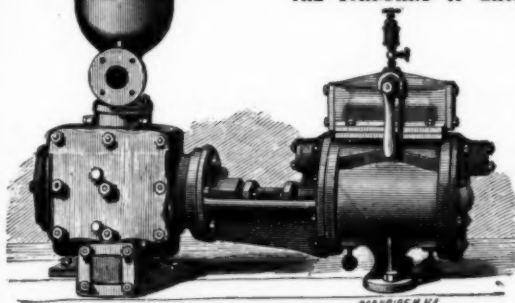
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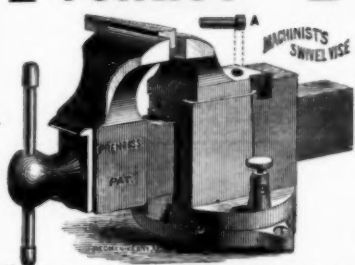
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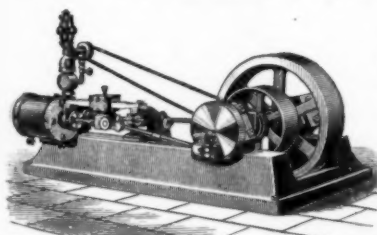
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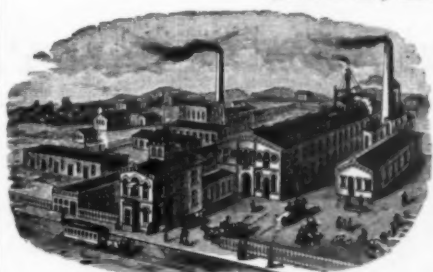
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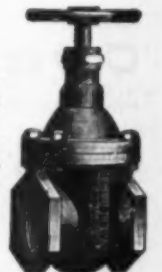
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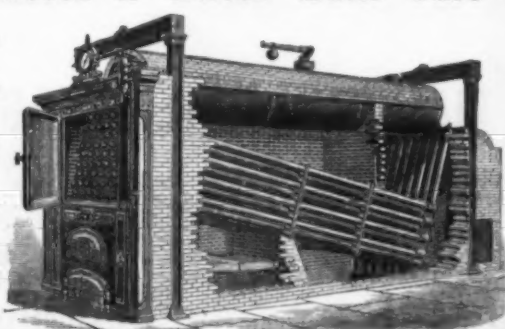
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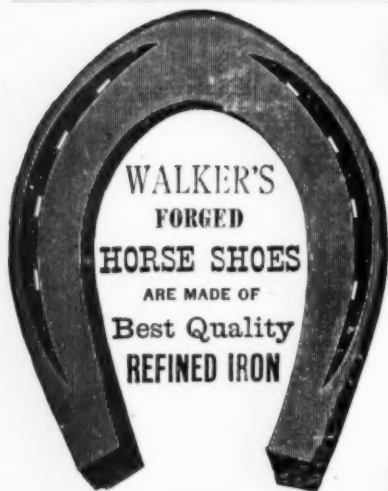
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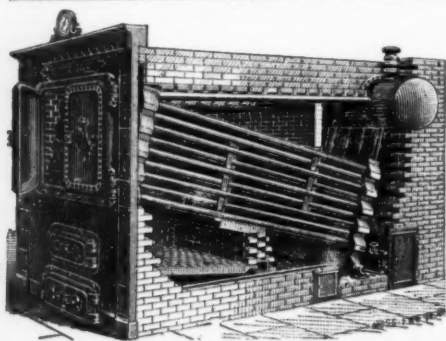


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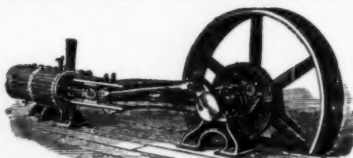
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Dowel and Hand Rail Bits.....	10 lb 10c, 20 30
Ives' "Jennings" Bits.....	10 lb 10c, 20 30
Expansive Bits, small, \$18; large, 30c, 35c	10 lb 10c, 20 30
Expansive Bits, Ives'.....	10 lb 10c, 20 30
Expansive Bits, Blake's.....	10 lb 10c, 20 30
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Hollow Augers, Douglas.....	10 lb 10c, 20 30
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Hol. Aug., Ives' Expansive, each \$4.50, 25 10	10 lb 10c, 20 30
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Wood's.....	10 lb 10c, 20 30
Gimlet Bits, Diamond.....	10 lb 10c, 20 30
Double Cut Gimlet Bits, Shephardson's.....	10 lb 10c, 20 30
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Brad Sets, Alken's.....	10 lb 10c, 20 30
Brad Sets, No. 43, \$10.50; No. 43, \$12.50, 25 10	10 lb 10c, 20 30
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Brad Sets, Stanley's Exc., No. 2, \$4.00, 25 10	10 lb 10c, 20 30
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Single Bit, 4 1/2 to 5 1/2 and under.....	10 lb 10c, 20 30
Single Bit, 4 1/2 to 6 and over.....	10 lb 10c, 20 30
Single Bit, 6 and over.....	10 lb 10c, 20 30
Double Bit, 4 1/2 to 5 1/2 and under.....	10 lb 10c, 20 30
Double Bit, 4 1/2 to 6 and over.....	10 lb 10c, 20 30
Double Bit, 6 and over.....	10 lb 10c, 20 30
Second quality Axes.....	10 lb 10c, 20 30
Sheldon & Co., Iron.....	
Axle Grease—Frazier's.....	10 lb 10c, 20 30
BALANCES.	
Spring Balances.....	10 lb 10c, 20 30
BELLOWS.	
Hand, Light Brass.....	10 lb 10c, 20 30
Hand, Silver Metal.....	10 lb 10c, 20 30
Hand, White Chime.....	10 lb 10c, 20 30
Hand, Globe (Cone's Patent).....	10 lb 10c, 20 30
Gong, Abbe's.....	10 lb 10c, 20 30
Gong, Yankee.....	10 lb 10c, 20 30
Gong, Barton's.....	10 lb 10c, 20 30
Leon Reading.....	10 lb 10c, 20 30
Pul. Brook's.....	10 lb 10c, 20 30
Crank, Taylor's.....	10 lb 10c, 20 30
Lever, Sargent's.....	10 lb 10c, 20 30
Blowdown.....	10 lb 10c, 20 30
Lever, R. & E. M. Co.'s.....	10 lb 10c, 20 30
Call.....	10 lb 10c, 20 30
Cow, Common Wrought.....	10 lb 10c, 20 30
Cow, Western, Sargent's List.....	10 lb 10c, 20 30
Cow, Kentucky, Sargent's List.....	10 lb 10c, 20 30
Cow, Moore's or Dodge's, Genuine Key, new list:	10 lb 10c, 20 30
No. 0 1 1/2 2 3 4 5 6 Hog, 12 1/2 10 1/2	10 lb 10c, 20 30
Cow, Texas "Star".....	10 lb 10c, 20 30
BLACKSMITHS' COMMON.....	
Molders.....	10 lb 10c, 20 30
Hand Bellows.....	10 lb 10c, 20 30
FRANCIS.....	
Mackrell's.....	10 lb 10c, 20 30
Van Sand's Screw Pattern.....	10 lb 10c, 20 30
Van Sand's Old Pattern.....	10 lb 10c, 20 30
Merriman's.....	10 lb 10c, 20 30
Zimmerman's, 10 1/2 in.....	10 lb 10c, 20 30
Zimmerman's, 9 in.....	10 lb 10c, 20 30
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Cast Iron Barrel Shutter, &c.....	10 lb 10c, 20 30
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Wrought Barrel.....	10 lb 10c, 20 30
Wrought Square.....	10 lb 10c, 20 30
Wrt. Shutter, all Iron, Stanley's List.....	10 lb 10c, 20 30
Wrt. Shutter, Brass Knob, Stanley's List.....	10 lb 10c, 20 30
Wrought Shutter, Sargent's List.....	10 lb 10c, 20 30
Wrought Sunk Flush, Sargent's.....	10 lb 10c, 20 30
Wrought Sunk Flush, Stanley's.....	10 lb 10c, 20 30
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Carriage and Tire, Common, new list.....	10 lb 10c, 20 30
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Carriage Bolts, Clarke's.....	10 lb 10c, 20 30
Carriage Bolts, Lancaster Bolt Co.....	10 lb 10c, 20 30
Excelsior, Low List.....	10 lb 10c, 20 30
Norway.....	10 lb 10c, 20 30
R. B. & W. Carriage (old list).....	10 lb 10c, 20 30
Tire, American Screw Co.'s, Phila.....	10 lb 10c, 20 30
Tire, "Bar State".....	10 lb 10c, 20 30
Eagle Philadelphia Tire Bolt.....	10 lb 10c, 20 30
Store.....	10 lb 10c, 20 30
Flow.....	10 lb 10c, 20 30
Machine.....	10 lb 10c, 20 30
Bolt Ends and Lag Screws.....	10 lb 10c, 20 30
BONAX.	
16c 7 lb net.....	10 lb 10c, 20 30
BORING MACHINES. Upright, Angular.	
First quality, no Angers.....	10 lb 10c, 20 30
Phillips, with Angers.....	10 lb 10c, 20 30
BRACES.	
Q. S. Backus.....	10 lb 10c, 20 30
Barber's.....	10 lb 10c, 20 30
Spofford's Patent.....	10 lb 10c, 20 30
Ives' Patent Braces.....	10 lb 10c, 20 30
Common Ball (American).....	10 lb 10c, 20 30
Amidon's.....	10 lb 10c, 20 30
BORING MACHINES—WITNEY & AUGER.	
Sweet & Clark upright, 3.00 angular.....	10 lb 10c, 20 30
Lawrence.....	10 lb 10c, 20 30
Hubbard.....	10 lb 10c, 20 30
BRACKET.	
Shelf, plain.....	10 lb 10c, 20 30
Shelf, fancy.....	10 lb 10c, 20 30

BRIGHT WIRE GOODS.	
New Hat.....	10 lb 10c, 20 30
BULL RINGS.	
Union Nut Co.....	10 lb 10c, 20 30
Sargent's.....	10 lb 10c, 20 30
Humason, Beckley & Co.'s.....	10 lb 10c, 20 30
BUTTS.	
Wrought Brass.....	10 lb 10c, 20 30
Cast Brass, Fast Joint.....	10 lb 10c, 20 30
Cast Brass, Loose Joint.....	10 lb 10c, 20 30
Fast Joint, Narrow.....	10 lb 10c, 20 30
Fast Joint, Broad.....	10 lb 10c, 20 30
Loose Joint.....	10 lb 10c, 20 30
Loose Joint, Jap. with Acorn.....	10 lb 10c, 20 30
Parliament Butts.....	10 lb 10c, 20 30
Mayer's Hinges.....	10 lb 10c, 20 30
Loose Pin, no Acorn.....	10 lb 10c, 20 30
Loose Pin, Acorn.....	10 lb 10c, 20 30
Loose Pin, Acorn, Japanned.....	10 lb 10c, 20 30
Loose Pin, Acorn, Jap'd, Plated	10 lb 10c, 20 30
Tips.....	10 lb 10c, 20 30
Wrought Iron.	
Fast Joint, Narrow.....	10 lb 10c, 20 30
Fast Joint, Lt. Narrow.....	10 lb 10c, 20 30
Fast Joint, Broad.....	10 lb 10c, 20 30
Loose Joint, Broad.....	10 lb 10c, 20 30
Table Butts, Back Flaps, &c.....	10 lb 10c, 20 30
Inside Blind, Regular.....	10 lb 10c, 20 30
Inside Blind, Light.....	10 lb 10c, 20 30
Loose Pin, Wrt.....	10 lb 10c, 20 30
Loose Pin, Light.....	10 lb 10c, 20 30
Spring Hinges—	
Geer's Spring and Blank Butts.....	10 lb 10c, 20 30
Clarke Hardware Co.'s.....	10 lb 10c, 20 30
American Spring Hinge Co.'s.....	10 lb 10c, 20 30
Gem Spring Hinges.....	10 lb 10c, 20 30
Blind Butts, Shepard's, Nos. 30 and 60.....	10 lb 10c, 20 30
Blind Butts, Shepard's, No. 60.....	10 lb 10c, 20 30
Blind Butts, Shepard's, No. 75.....	10 lb 10c, 20 30
Blind Butts, Lull & Porter.....	10 lb 10c, 20 30
Blind Butts, Huffer.....	10 lb 10c, 20 30
Blind Butts, Clark's, Nos. 1, 3, 5.....	10 lb 10c, 20 30
BOW PINS.	
Humason, Beckley & Co.'s.....	10 lb 10c, 20 30
Sargent & Co.'s.....	10 lb 10c, 20 30
Hotchkiss.....	10 lb 10c, 20 30
BUTCHER'S CLAVES.	
Humason & Beckley Mfg. Co.....	10 lb 10c, 20 30
Bradley's.....	10 lb 10c, 20 30
Beatty's.....	10 lb 10c, 20 30
1 2 3 4 5 6 7 8	10 lb 10c, 20 30
10 12 14 16 18 20 22 24 26 28 30 32 34 36 38	10 lb 10c, 20 30
CAN OPENERS.	
American.....	10 lb 10c, 20 30
New Idea.....	10 lb 10c, 20 30
No. 4, French.....	10 lb 10c, 20 30
No. 5, Iron Hand.....	10 lb 10c, 20 30
Sardine Scissors.....	10 lb 10c, 20 30
Sprague, No. 1, \$3; No. 2, \$3.25; No. 3, \$3.50, 25 10	10 lb 10c, 20 30
Universal.....	10 lb 10c, 20 30
CAPS, PERCUSSION, 1,000.	
U. M. C. F. C. trimmed.....	10 lb 10c, 20 30
U. M. C. F. C. ground.....	10 lb 10c, 20 30
U. M. C. C. C. ground.....	10 lb 10c, 20 30
U. M. C. Double W. Proof.....	10 lb 10c, 20 30
G. D. & S. B.....	10 lb 10c, 20 30
E. B. 1-10, Eley's.....	10 lb 10c, 20 30
Musket, in 1-10's.....	10 lb 10c, 20 30
Hicks Ground Edge in Brass Boxes.....	10 lb 10c, 20 30
CARTRIDGES.	
Rim.....	10 lb 10c, 20 30
Central Fire, pistol size.....	10 lb 10c, 20 30
U. M. C. F. C. ground.....	10 lb 10c, 20 30
B. B. Caps, Round Base.....	10 lb 10c, 20 30
Swaged Conical.....	10 lb 10c, 20 30
NEW LIST ON CARTRIDGES.	
Rim-fire, 22, short.....	10 lb 10c, 20 30
" 32, ".....	10 lb 10c, 20 30
" 38, ".....	10 lb 10c, 20 30
" 41, ".....	10 lb 10c, 20 30
Central Fire—32, \$11.00; 38, \$13.50; 41, 15.00; 44, 19.00.	10 lb 10c, 20 30
HORSE AND CURRY, new list, July, 1881.	
Cotton, new list, July, 1881.....	10 lb 10c, 20 30
Wood, new list, July, 1881.....	10 lb 10c, 20 30
CARPET STRETCHERS.	
Cast Steel, Polished.....	10 lb 10c, 20 30
Cast Iron, Steel Points.....	10 lb 10c, 20 30
Bullard's.....	10 lb 10c, 20 30
CASTERS.	
Bed.....	10 lb 10c, 20 30
Plate and Shallow Socket.....	10 lb 10c, 20 30
Deep Socket.....	10 lb 10c, 20 30
Martin's Patent (Phoenix).....	10 lb 10c, 20 30
CATTLE LEADERS.	
Humason, Beckley & Co.'s.....	10 lb 10c, 20 30
Sargent's.....	10 lb 10c, 20 30
P. S. & W.....	10 lb 10c, 20 30
CHAIN.	
German Halter and Chain.....	10 lb 10c, 20 30
Trace, Breast and Fancy.....	10 lb 10c, 20 30
Oneida Halter Chain (old list).....	10 lb 10c, 20 30
Galvanized Pump Chain.....	10 lb 10c, 20 30
Jack Chain, Iron.....	10 lb 10c, 20 30
Jack Chain, Brass.....	10 lb 10c, 20 30
CHALK.	
White.....	10 lb 10c, 20 30
Barbed.....	10 lb 10c, 20 30
Barbed, 1 in.....	10 lb 10c, 20 30
White Crayons.....	10 lb 10c, 20 30
COTTON LINES.	
Cotton Fish Lines.....	10 lb 10c, 20 30
Cotton Chalk Lines, 30 feet:	10 lb 10c, 20 30
Nos. 11, 13, 15, 17, 30.....	10 lb 10c, 20 30
\$3.20, 3.40, 4.00, 4.50, 5.25.....	10 lb 10c, 20 30
CHISELS.	
Socket Framing, Crossman.....	10 lb 10c, 20 30
Socket Framing, P. S. & W.....	10 lb 10c, 20 30
Socket Framing, Douglas.....	10 lb 10c, 20 30
Socket Firmers, Crossman.....	10 lb 10c, 20 30
Socket Firmers, Ohio Tool Co.....	10 lb 10c, 20 30
Socket Firmers, Douglas.....	10 lb 10c, 20 30
Socket Corner.....	10 lb 10c, 20 30
Tanged Firmers.....	10 lb 10c, 20 30
Tanged Firmers, Butcher's.....	10 lb 10c, 20 30
L. Merrill's Socket and Framing Chisel.....	10 lb 10c, 20 30
CLAMPS.	
Iron, Screw, Eagle.....	10 lb 10c, 20 30
Iron, Adjustable, Stearns.....	10 lb 10c, 20 30
Iron, Cabinet, Sargent's.....	10 lb 10c, 20 30
Iron, Carriage makers, Carr & Crawley.....	10 lb 10c, 20 30
CLIPS, AXLE.	
Norway or Best.....	10 lb 10c, 20 30
Superior.....	10 lb 10c, 20 30
Conestogo.....	10 lb 10c, 20 30
Cold Hods—Griffiths.....	10 lb 10c, 20 30
COOKS, 1880.	
Racking, new list, July 10, 1880.....	10 lb 10c, 20 30
Globe, new list, July 10, 1880.....	10 lb 10c, 20 30
Plain Bibbe, new list, July 10, 1880.....	10 lb 10c, 20 30
Ale and Beer, new list, July 10, 1880.....	10 lb 10c, 20 30
COFFEE MILLS.	
Parkers.....	10 lb 10c, 20 30
Wilson's.....	10 lb 10c, 20 30
Logan & Streibridge.....	10 lb 10c, 20 30
Enterprise Mfg. Co.....	10 lb 10c, 20 30
COMPASSES, DIVIDERS, &c.	
Compasses.....	10 lb 10c, 20 30
Calipers.....	10 lb 10c, 20 30
Dividers.....	10 lb 10c, 20 30
Cook's Pencil.....	10 lb 10c, 20 30
COOPERS' TOOLS.	
Bradley's.....	10 lb 10c, 20 30
Barton's.....	10 lb 10c, 20 30

CROW BARS.	
Cast Steel.....	10 lb 10c, 20 30
Iron, Steel Points.....	10 lb 10c, 20 30
CURLING IRONS, &c.	
N. N. In.....	10 lb 10c, 20 30
Curling Tongs.....	10 lb 10c, 20 30
Pinching Irons.....	10 lb 10c, 20 30
CURRY COMBS.	
Fitch's new list.....	10 lb 10c, 20 30
Hotchkiss, Novelty, new list, July, 1880.....	10 lb 10c, 20 30
Hotchkiss, Excir. Snpr. Champion.....	10 lb 10c, 20 30
Lawrence's "Perfect".....	10 lb 10c, 20 30
Rubber.....	10 lb 10c, 20 30
Sweet & Clarke.....	10 lb 10c, 20 30
Lusters.....	10 lb 10c, 20 30
CURTAIN PINS.	
Silvered Glass.....	10 lb 10c, 20 30
White Enamel.....	10 lb 10c, 20 30
CUTLERY.	
Association (Table).....	10 lb 10c, 20 30
Namgatch Cutlery Co.....	10 lb 10c, 20 30
Excelsior Knife Co.....	10 lb 10c, 20 30
Wilson's Butcher and Shoe Knives.....	10 lb 10c, 20 30
Ames' Shoe Knives.....	10 lb 10c, 20 30
Wm. Rogers Manf. Co., Plated Cutlery.....	10 lb 10c, 20 30
DOG COLLARS.	
Embossed Gilt.....	10 lb 10c, 20 30
Leather.....	10 lb 10c, 20 30
Brass.....	10 lb 10c, 20 30
DOOR SPRINGS.	
Torrey's Rod, regular size, 7 doz., \$35. dis 40 10 10	
Gem (Coll):	
No. 1, Large Japanned.....	7 doz \$4.00
No. 2, Medium Japanned.....	7 doz 3.75
No. 3, Small, Japanned.....	7 doz 3.50
No. 4, ("Shoo Fly") Screen door size, 1.50	
No. 5, Screen door size.....	2.00
No. 6, Medium.....	2.75
No. 7, Large.....	4.00
Standard—10 doz \$1.25.....	dis 50 10 10
9 doz 1.75.....	dis 50 10 10
8 doz 2.00.....	dis 50 10 10
6 doz 3.50.....	dis 50 10 10
Mercurals.....	dis 40 10 10
DRAWING KNIVES.	
Ohio Tool Co.....	dis 60 10 10
Crossman's No. 1.....	dis 65 10 10
Nobles Mfg. Co.....	dis 15 10 10
Bradley's.....	dis 35 10 10
Unfailable Handle.....	dis 35 10 10
P. S. & W.....	dis 10 10 10
Douglases.....	dis 70 10 10
DRILLS AND DRILL STOCKS.	
Blacksmiths'.....	each, \$2.50, dis 10 10 10
Blacksmiths' Self-Feeding.....	each, \$7.50, dis 30 10 10
Breast, P. S. & W.....	dis 20 10 10
Breast, Wilson's.....	dis 30 10 10
Breast, Millers Falls.....	each, \$5.00, dis 25 10 10
Breast, Bartholomew's.....	each, \$2.50, dis 35 10 10
Wilson's Drill Stocks.....	dis 10 10 10
Automatic Boring Tools.....	each, \$2.25, dis 20 10 10
EGG BEATERS.	
Dover.....	7 doz, \$2.50, dis 15 10 10
Medallion.....	gross, \$10.00
Victoria.....	gross, \$10.00
EMERY AND EMERY PAPER.	
Regular numbers.....	10 lb 10c, 20 30
Flour and F. F.....	10 lb 10c, 20 30
B. & A. Emery Paper.....	dis 30 10 10
ENAMELED AND TINNED WARE.	
Kettles.....	dis 50 10 10
Sauce Pans.....	dis 30 10 10
Tinned Sauce Pans.....	dis 30 10 10
Escutcheon Pins—Brass.....	dis 50 10 10
HATCHES.	
Door Lock.....	dis 20 10 10
Brass Thread.....	dis 25 10 10
Wood.....	dis 25 10 10
FAUCETS.	
Fenn's.....	dis 40 10 10
Fenn's Cork Stops.....	dis 35 10 10
Star.....	dis 55 10 10
Frary's Patent Petroleum.....	dis 30 10 10
Wells Patent Key.....	dis 40 10 10
Anchor Lock.....	dis 40 10 10
Metallic Key, Leather Lined.....	dis 60 10 10
Cork Lined.....	dis 70 10 10
J. Sommer's Best Metallic Key.....	dis 40 10 10
J. Sommer's Cork Lined, 1st quality.....	dis 50 10 10
FILES.	
E. M. Boynton's.....	new list, dis 25 10 10
Western File Co.....	dis 30 10 10
W. & A. G.....	dis 50 10 10
Moss & Gamble.....	\$4.50 to 10 10 10
H. Diastion & Sons (new list).....	dis 40 10 10
Heller Bros. Horse Rasps.....	dis 30 10 10
Nicholson.....	dis 40 10 10
New American.....	dis 40 10 10
Union File Co.....	dis 45 10 10
Stubs, new list.....	\$7.50 to 10 10 10
Knox, 4 1/2-inch Rolls.....	\$3.50 each
Knox, 6-inch Rolls.....	\$4.00 each
Eagle, 3 1/2-inch Roll.....	\$2.15, dis 35 10 10
Eagle, 5 1/2-inch Roll.....	2.85, dis 35 10 10
Crown, 4 1/2-in., \$3.50; 6, \$4.00; 8, \$6.50 each.....	dis 35 10 10
Crown Jewel.....	6-in., \$3.40 each.....
American, 5-in., 3 1/2-in., \$3.40; 7-in., \$4.50	
each.....	dis 35 10 10
Domestic Flutcher, White Metal, 7 doz	
\$12.....	dis 25 10 10
Crown Hand Fluter, Nos. 1, \$15; 2, \$13.50;	
3, \$10.10 7 doz.....	dis 25 10 10
Combined Fluter and Sad Iron, 7 doz \$15.00 dis 30 10 10	
POIKES.	
Lawson & Brenizer.....	dis 50 10 10
Remington.....	dis 50 10 10
Sheble & Fisher.....	dis 50 10 10
RAY PANS.	
Burnished list as follows.....	dis 60 10 10
No.....	1 2 3 4 5 6 7 8
7 doz.....	\$3.00 3.75 4.25 4.70 5.25 6.00 7.00 8.00 9.00
SAWES.	
Marking, Stanley's.....	dis 50 10 10
Marking, Chapin's.....	dis 55 10 10
Double Cut, Irwin's.....	dis 10 10 10
Wire, Diction's.....	dis 20 10 10
Wire, Wheeler, Madden & Co.....	dis 10 10 10
SILMETS.	
Nail and Spike.....	dis 40 10 10
"Eureka" Gimlets.....	dis 50 10 10
"Diamond" Gimlets.....	dis 50 10 10
Double Cut, Shepardson's.....	dis 50 10 10
Double Cut, Harwell's.....	dis 50 10 10
Double Cut, Irwin's.....	dis 50 10 10
"Reel".....	7 gro. \$13.00, dis 35 10 10
GLUE POTS.	
Tinned and Enamelled.....	dis 35 10 10
Family, Howe's "Eureka".....	dis 35 10 10
Family, L. F. & C's "Handy".....	dis 30 10 10
SHIMMERS PISTONS.	
Sargeant Hardware.....	dis 70 10 10
Needling Hardware.....	dis 35 10 10
GUN WADES.	
Riley's B. E. wads, 11 upwards.....	\$1.75
" " " " 7 and 10.....	2.00
" " " " 7 and 8.....	2.25
" P. E. " " 11 upwards.....	2.50
" " " " 9 and 10.....	2.65
" " " " 7 and 8.....	2.45
HAMMERS.	
Mardole's.....	dis 15 10 10
Magnetic Tack, Nos. 1, 2, 3, \$1.25, 1.50 and 1.75.....	dis 30 10 10



Woodruff's (P. S. & W.).....Nos. 100 150	Chicago Scale Co.....Special dis
Bales'.....Nos. 11 12 13	Fairbanks'.....dis 20
Kieser's No. 55.....\$40	Forsyth Scale Co.....dis 45
Kieser's No. 58.....\$40	Howe's.....dis 20
Kieser's No. 59.....\$40	Chattillon's Grocers'.....dis 25
Kieser's No. 60.....\$40	Family Universal.....dis 25
Kieser's No. 61.....\$40	Family Favorite.....dis 25
Kieser's No. 62.....\$40	Family Turnbull's.....dis 25
Kieser's No. 63.....\$40	Scale Beams, List of Jan. 12, 1882.....dis 50
Kieser's No. 64.....\$40	
Kieser's No. 65.....\$40	
Kieser's No. 66.....\$40	
Kieser's No. 67.....\$40	
Kieser's No. 68.....\$40	
Kieser's No. 69.....\$40	
Kieser's No. 70.....\$40	
Kieser's No. 71.....\$40	
Kieser's No. 72.....\$40	
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Kieser's No. 74.....\$40	
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Kieser's No. 79.....\$40	
Kieser's No. 80.....\$40	
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Kieser's No. 196.....\$40	
Kieser's No. 197.....\$40	
Kieser's No. 198.....\$40	
Kieser's No. 199.....\$40	
Kieser's No. 200.....\$40	

Brass and Copper, list of Jan. 17, 1884.....15	WINE.
Bright and Annealed.....Nos. 0, 18, dis 50 & 10	
Bright and Annealed.....Nos. 19, 26, dis 60 & 10	
Bright and Annealed.....Nos. 27, 36, dis 70	
Coppered.....Nos. 0, 18, dis 50	
Coppered.....Nos. 19, 26, dis 60	
Coppered.....Nos. 27, 36, dis 70	
Galvanized, Nos. 0 to 18.....market list dis 40	
Tinned, Nos. 0 to 26.....dis 60	
Tinned Broom Wire, Nos. 18 to 36.....dis 60	
Annealed Fence, Nos. 36 to 54.....dis 55	
Annealed Grapes, Nos. 10 to 14.....dis 10	
Fence Staples, Galvanized.....	7 lb 7 1/2 c
Japanned Barb Fence.....	7 lb 6 c
Galvanized Barbed Fence.....	7 lb 6 1/2 c
Buck Thorn Galvanized.....	7 c
Picture Wire.....	dis 40
Clothes Line Wire, Galvanized.....	\$3.00 7 doz
Wire Cloth, green, drab and black.....	7 sq ft 3 1/2 c

American Adjustable.....	dis 45
Baxter's Adjustable "S," list Jan. 1880.....	dis 20 & 5
Baxter's Diagonal.....	dis 20 & 5
Coe's Genuine.....	dis 50 & 10
Coe's "Mechanics".....	dis 50 & 10
Coe's Pattern, Malleable.....	dis 75
Coe's Pattern, Wrought.....	dis 60 & 10
Girard Standard.....	dis 50 & 10
Girard A.G.L.....	dis 60 & 10
Always Ready.....	\$9.00—25

Universal, XX, No. 3 1/2.....	Per doz.
Universal, XX, No. 2.....	36.00
Universal, XX, No. 1 1/2.....	42.00
Universal, XX, No. 1.....	51.00
Universal, XX, No. 8.....	66.00
Universal, XX, No. 12.....	each 10.75
Universal, XX, No. 18.....	each 30.25
Universal, XX, No. 22.....	each 32.75
Peerless, with Cogs, No. 1.....	each 30.25
Peerless, with Cogs, No. 2.....	42.00
Peerless, with Cogs, No. 3.....	45.00
Peerless, with Cogs, No. 4.....	48.00

Tin Case.....	dis 7 & 10
Storm Glasses.....	\$3.25 7 doz.

Tinned Sweden Tacks.....	dis 30
Tinned American Tacks.....	dis 30
Sweden Tacks, all kinds.....	dis 30
American Cut Tacks.....	dis 30
Copper Tacks and Nails.....	dis 30
Hungarian Nails.....	dis 35
Gimp and Lace Tacks.....	dis 30
Gimp and Lace Tacks, Tinned.....	dis 30
Finishing Nails.....	dis 25
Trunk and Clout Nails.....	dis 25
Common and Patent Brads.....	dis 30
Basket Nails.....	dis 30
Brush Tacks.....	dis 30
Leathered Carpet Tacks.....	dis 30
Cigar Box Nails.....	dis 30
Chair Nails.....	dis 30
Double-pointed Tacks.....	dis 40 & 5

Common and Ring.....	dis 20
Ives' Tap Borers.....	dis 15 & 10
Enterprise Mfg. Co.....	dis 25

Enterprise Mfg. Co. (Champion).....	dis 25
Wood Bottom.....	dis 12.00, dis 40 & 5
All Iron.....	dis 30.50, dis 40 & 5
Wilson's.....	dis 35

Winsted.....	7 lb 9c, dis 5
Game, Newhouse.....	dis 35
Game, Oneida Pattern.....	dis 60 & 10
Game, Blake's Patent.....	dis 40 & 10
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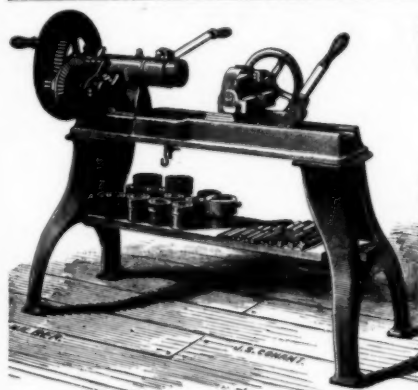


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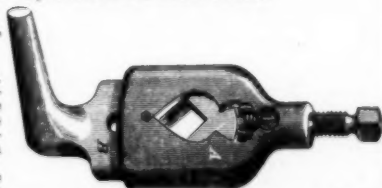
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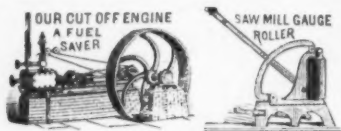
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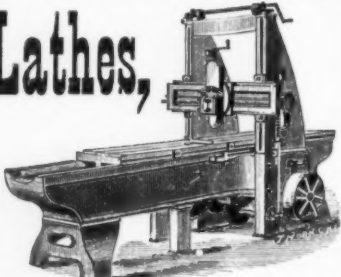
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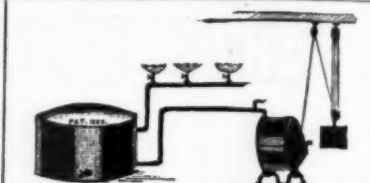
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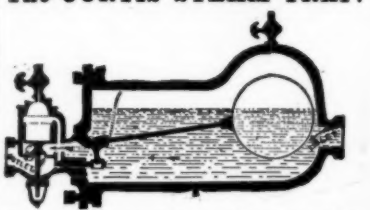
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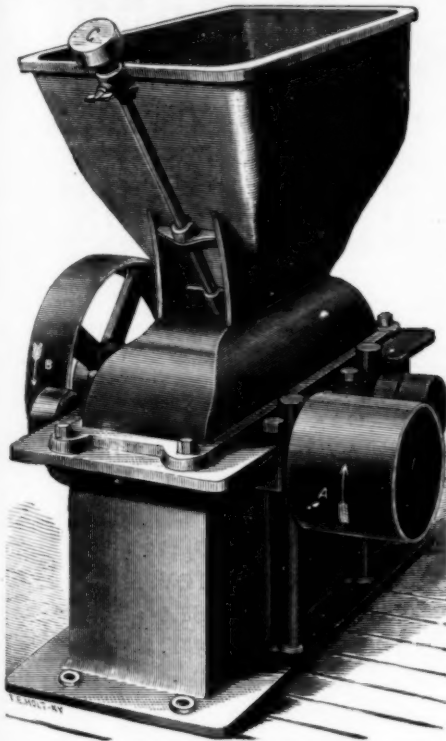
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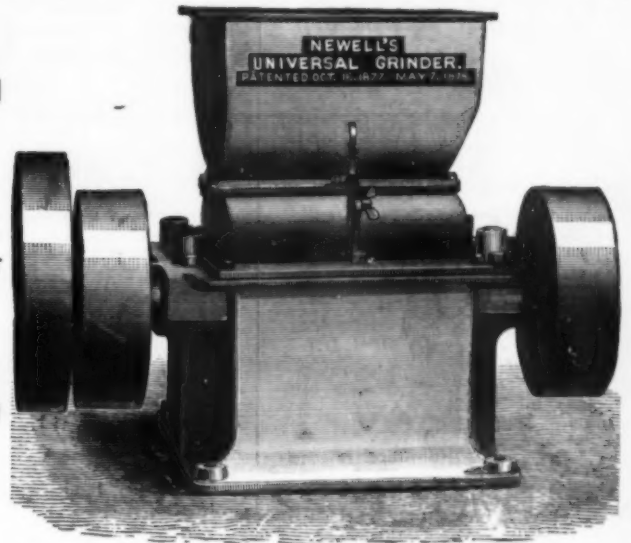
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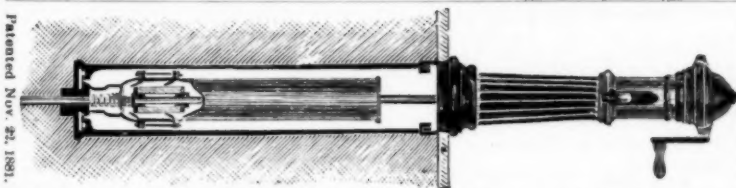
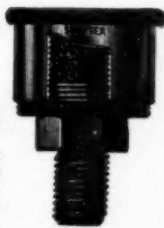
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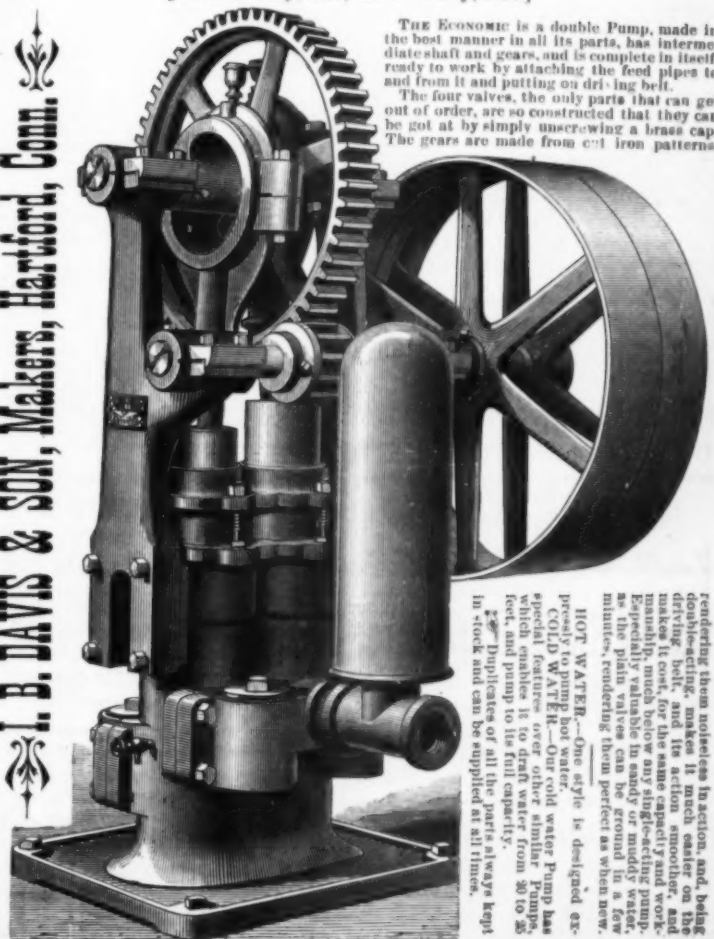
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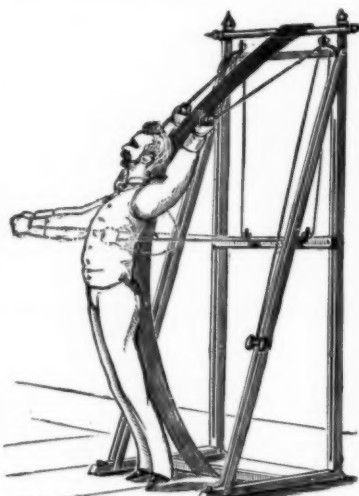


Fig. 9. CURVED BOARD.—To strengthen the Back, Neck, Abdominal Muscles and Expand the Chest.

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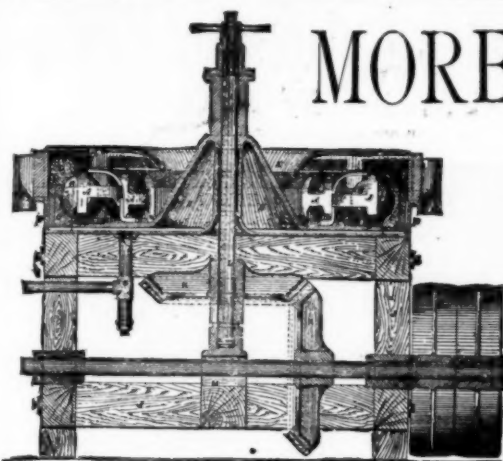
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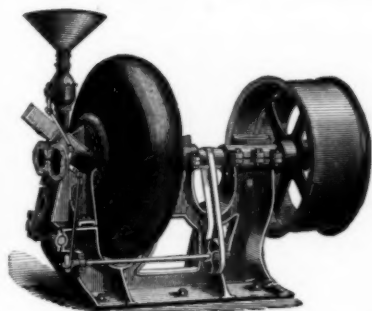
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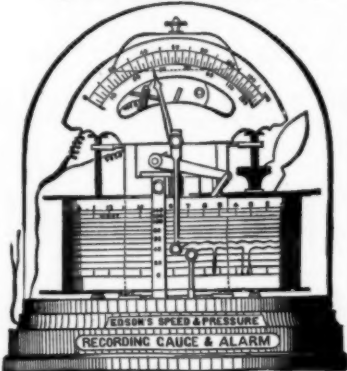
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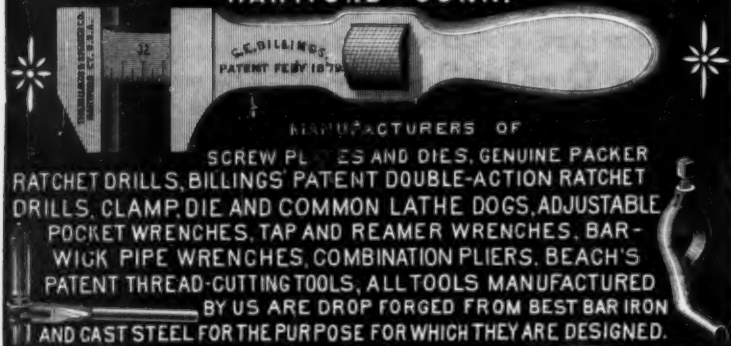
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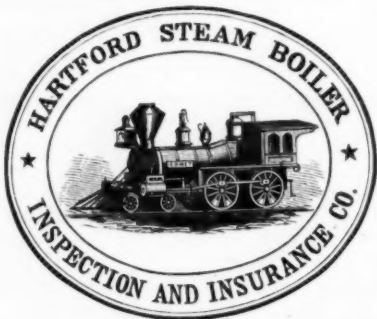
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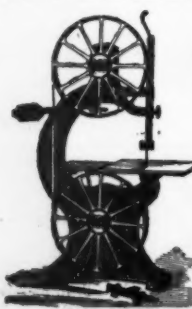
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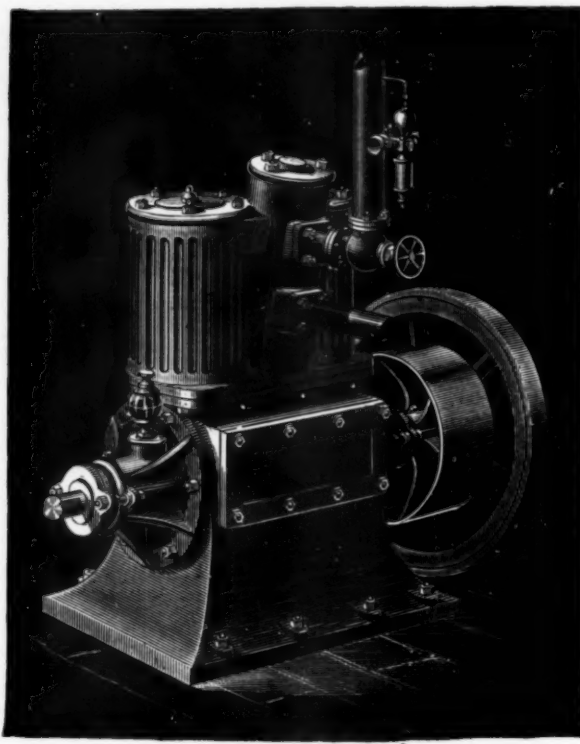
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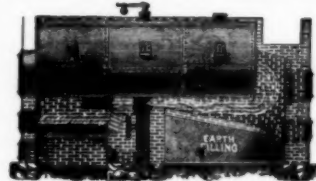
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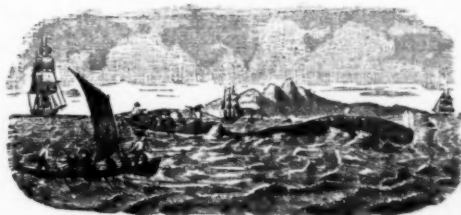
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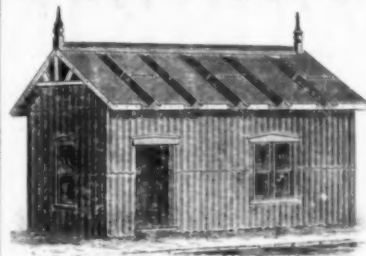
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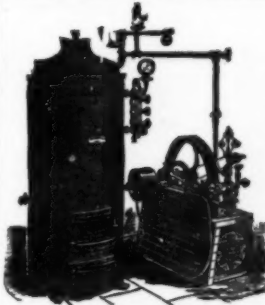
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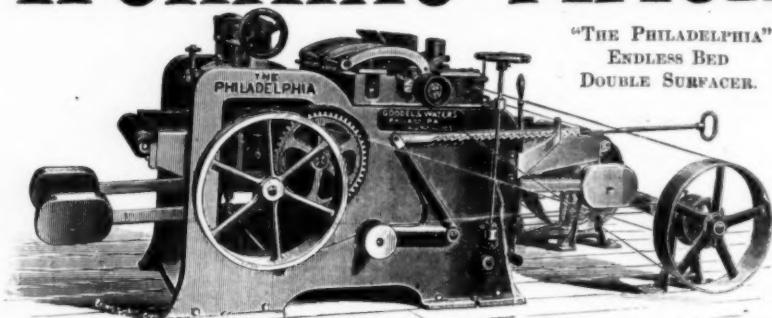
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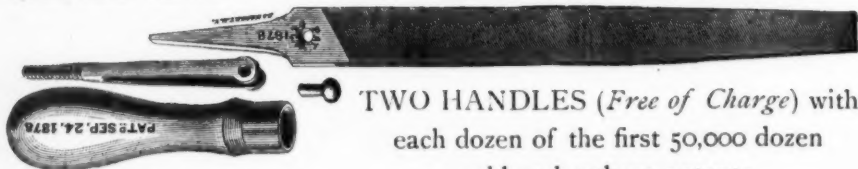
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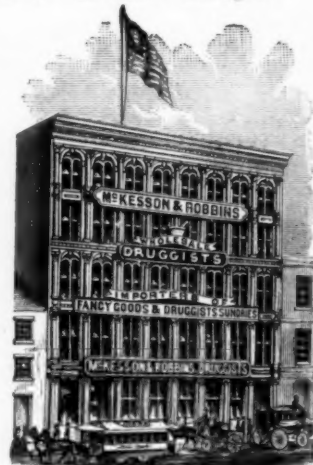
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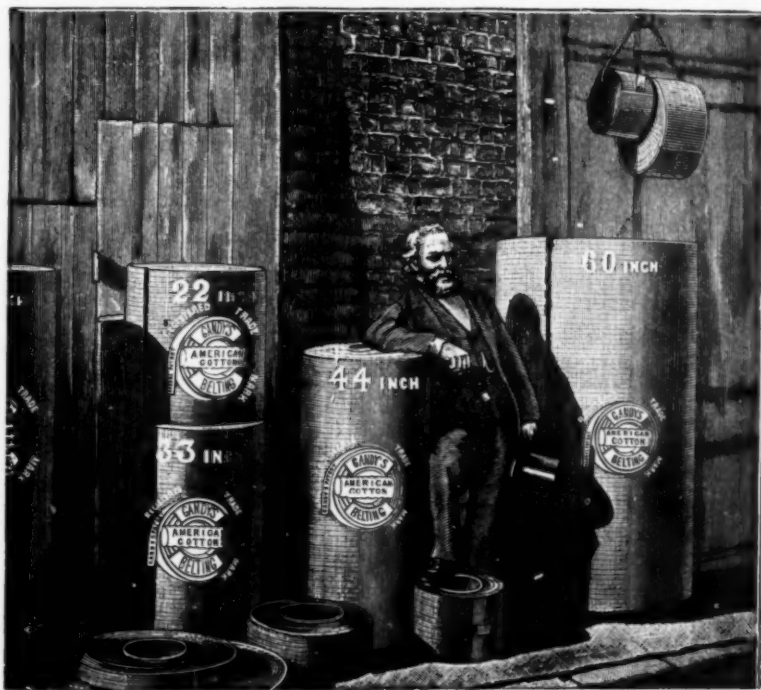
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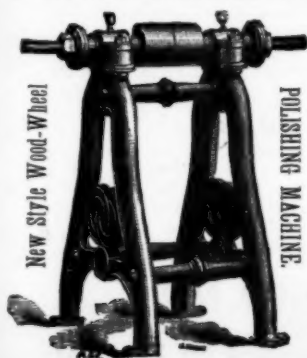
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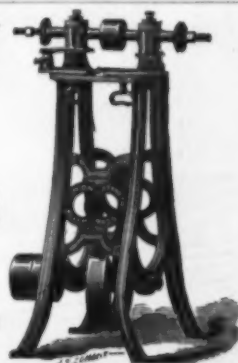
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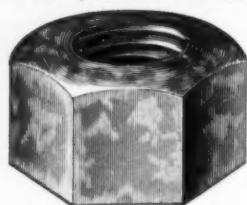
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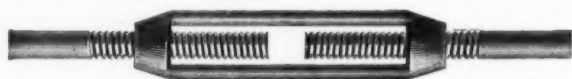
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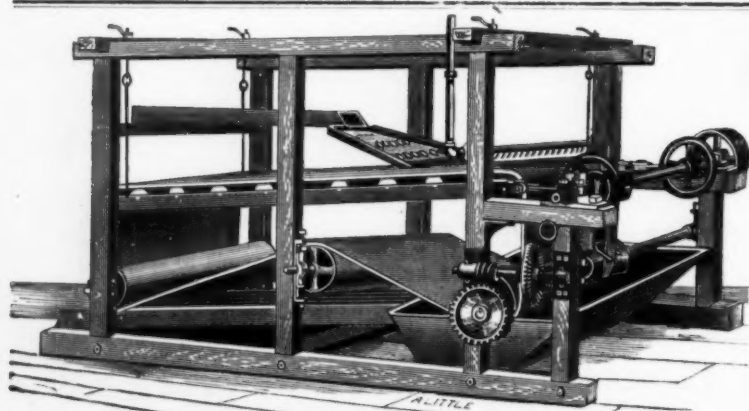
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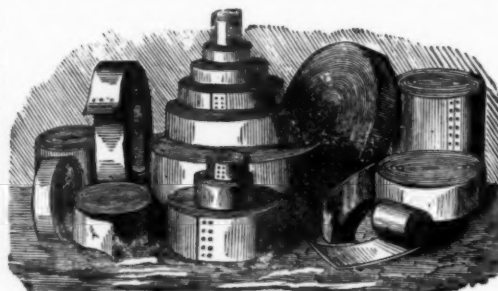
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